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**FRENCH LIMITED SITE  
CROSBY, TEXAS**

**Groundwater Sampling Report  
3rd Quarter, 1997**

**Prepared for:**

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**Submitted to:**

**U.S. Environmental Protection Agency  
Region 6  
Dallas, Texas**

**September, 1997**



**193187**

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## **1.0 Introduction**

This report presents the results of aquifer progress monitoring performed at the French Limited Superfund site, Crosby, Texas, for the third quarter of 1997. Aquifer measurements and sampling were completed in July 1997. Measurements and sampling were performed in accordance with Table 12.1, "Progress Monitoring Wells (1996-2005)", of the approved site closure plan<sup>1</sup>. Sampling was performed in accordance with the standard site groundwater sampling protocol.

Results of the July 1997 sampling are tabulated in Appendix A, including historic results since the shutdown of active remedial operations in December 1995.

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<sup>1</sup> Southwestern Environmental Consulting, Inc. January, 1996. *Site Closure Plan, French Limited Project, Crosby, Texas.*

## 2.0 Progress monitoring

Groundwater measurements and sampling for the third quarter of 1997 were performed by Remedial Operations Group, Inc. (ROG), on July 14 through 16, 1997, as summarized in Table 2-1<sup>1</sup>. Measurements and sampling were performed in general accordance with Table 12.1, "Progress Monitoring Wells (1996-2005)", of the approved site closure plan<sup>2</sup>.

Water levels for the second quarter sampling event were measured on July 14 and 15, 1997. An additional (monthly) set of water levels was recorded on August 18, 1997. Locations of wells used for sampling and water level monitoring are shown in Figures 2-1 through 2-3. 13 new monitoring wells have been installed since the last quarterly monitoring event in April 1997. Wells S1-140, -141, and -142 are used to monitor S1 unit groundwater levels. Wells INT-147 through INT-156 are used to monitor INT unit groundwater levels. Figures 2-1 through 2-3 also show the area where the S1 and INT units are not separated by the C1 clay aquitard. The area of this "C1 window", where the C1 clay unit is absent, is taken from *Evaluation of Stratigraphic Controls on DNAPL Migration*<sup>3</sup>. The significance of the C1 unit is discussed in Section 2.5.1.

Analytical results were tabulated by ROG (Appendix A) and evaluated as follows:

1. Note volatile organic compound (VOC)/metals concentrations at or below maximum contaminant level ( $\leq$  MCL) or not detected (ND).
2. Note concentrations above maximum contaminant level ( $>$  MCL), and trends, if any. Note if detection limit (DL)  $>$  MCL.
3. Note residual nitrate.
4. Note elevated pH concentration, possibly indicative of unrepresentative groundwater samples.
5. Prepare contour maps for DO, TOC, benzene, 1,2-DCA, & vinyl chloride.

The chemical analysis results for wells INT-130R and INT-130RS were accidentally switched in last quarter's report. In this report, that error has been corrected.

<sup>1</sup> In Table 2-1, the symbol ✓ indicates that the sample was submitted for the corresponding analysis; the symbol \* indicates that the sample was not submitted for the corresponding analysis.

<sup>2</sup> Southwestern Environmental Consulting, Inc. January, 1996. *Site Closure Plan, French Limited Project, Crosby, Texas*.

<sup>3</sup> Applied Hydrology Associates, Inc. September 1995. *Evaluation of Stratigraphic Controls on DNAPL Migration*.

Table 2-1  
Progress monitoring, July 1997

Well	Water level	DO, pH, EC, T <sup>1</sup>	TOC, Nutrients <sup>2</sup>	Metals <sup>3</sup>	VOCs <sup>4</sup>
FLTG-13	✓	✓	✓	✗	✓
FLTG-14	✓	✓	✓	✗	✓
INT-22	✓	✓	✓	✗	✓
INT-26	✓	✓	✓	✗	✓
INT-59-P2	✓	✓	✗	✓	✗
INT-60-P2	✓	✓	✓	✗	✓
INT-101	✓	✓	✓	✓	✓
INT-106	✓	✓	✓	✗	✓
INT-108	✓	✓	✓	✗	✓
INT-118	✓	✓	✓	✓	✓
INT-120	✓	✓	✓	✗	✓
INT-123	✓	✓	✓	✗	✓
INT-127	✓	✓	✓	✗	✓
INT-130R	✓	✓	✓	✗	✓
INT-130RS	✓	✓	✓	✗	✓
INT-134	✓	✓	✓	✗	✓
INT-135	✓	✓	✓	✗	✓
INT-144	✓	✓	✓	✗	✓
INT-214	✓	✓	✓	✗	✓
INT-217	✓	✓	✓	✗	✓
INT-233	✓	✓	✓	✗	✓
P-5	✓	✗	✗	✗	✗
P-6	✓	✗	✗	✗	✗
S1-31	✓	✓	✓	✓	✓
S1-33	✓	✓	✓	✓	✓
S1-51-P3	✓	✓	✓	✗	✓
S1-64	✓	✗	✗	✗	✗
S1-106A	✓	✓	✓	✗	✓
S1-106R	✓	✓	✓	✗	✓
S1-108A	✓	✓	✓	✗	✓
S1-111	✓	✓	✗	✓	✗
S1-118	✓	✓	✓	✓	✓
S1-119	✓	✗	✗	✗	✗
S1-121	✓	✓	✓	✗	✓
S1-123	✓	✓	✓	✗	✓
S1-126	✓	✗	✗	✗	✗
S1-131	✓	✓	✓	✗	✓
S1-135	✓	✓	✓	✓	✓

Notes

1. DO = dissolved oxygen; EC = electrical conductivity; T = temperature
2. TOC = total organic carbon; nutrients = ammonia-N, nitrate-N, orthophosphate-P, and potassium
3. Metals = arsenic, chromium, and lead
4. VOCs = 1,2-dichloroethane, acetone, benzene, toluene, and vinyl chloride

## 2.1 Concentration < MCL or ND

Groundwater concentrations of the reported metals and organics were reported < MCL or ND in the following wells:

FLTG-13, FLTG-14, INT-22, INT-59-P2, INT-60-P3, INT-106, INT-108, INT-118, INT-135, INT-144, INT-214, S1-31, S1-33, S1-51-P3, S1-108A, S1-111, S1-118, S1-121.

## 2.2 Concentration > MCL

Groundwater samples from the wells with concentrations exceeding MCLs are presented in Table 2-2. For all samples, the detection limits for 1,2-DCA, benzene, and vinyl chloride were at or less than the respective MCLs; no action is required regarding detection limits.

## 2.3 Residual nitrate

Nitrate was generally non-detect (<0.2 mg/L-N) at most wells. At these low concentrations, denitrifying bioremediation will not occur. Residual nitrate exceeded the drinking water standard of 10 mg/L-N at the wells summarized in Table 2-3.

Nitrate concentrations exceeding the MCL are expected to decline with continuing denitrifying reactions related to intrinsic bioremediation. At wells INT-60-P3, INT-120, and INT-123, nitrate increased over last quarter. This suggests that denitrifying bioremediation has not taken place.

## 2.4 pH

Field pH values at nearly all wells were within the range 6.0-8.0, which is conducive to intrinsic bioremedial activity. However, at the following wells, field pH values on July 14-16 were outside this range:

Well	pH, July 1997	previous min. pH	previous max. pH
INT-118	9.44	7.98	10.48
INT-120	8.32	7.05	7.86
INT-123	9.96	7.20	10.67
INT-144	8.35	8.63	9.37
S1-33	5.97	6.48	7.23
S1-51-P3	5.97	6.53	6.92

Table 2-2  
Concentrations > MCL  
(concentrations in µg/L)

Well	Constituents and concentrations (µg/L)	Change since 4/97	Comments or recommended action
INT-26	benzene 38	up	none
INT-101	benzene 11	up	none
INT-120	1,2-DCA 16	down	benzene down to < MCL
INT-123	1,2-DCA 110 vinyl chloride 5	down similar	none
INT-127	benzene 67	similar	none
INT-130R	1,2-DCA 226 benzene 36	similar up	none
INT-130RS	1,2-DCA 64 benzene 31 vinyl chloride 180	similar up up	none
INT-134	1,2-DCA 82 benzene 30	up up	vinyl chloride down to < MCL
INT-217	benzene 16	up	vinyl chloride down to < MCL
INT-233	benzene 180 vinyl chloride 4	up up	none
S1-106A	1,2-DCA 32 benzene 8 vinyl chloride 39	up up up	none
S1-106R	benzene 37	up	none
S1-123	1,2-DCA 1,500 benzene 69 vinyl chloride 310	up up up	none
S1-131	benzene 21	up	none
S1-135	arsenic 97	similar	none

Explanation

µg/L micrograms per liter (ppb)

1,2-DCA 1,2-dichloroethane

MCL maximum contaminant level (Federal drinking water standard)

Table 2-3

## Residual nitrate &gt; 10 mg/L-N

Well	Nitrate in 1/96 (mg/L-N)	Nitrate in 4/96 (mg/L-N)	Nitrate in 7/96 (mg/L-N)	Nitrate in 10/96 (mg/L-N)	Nitrate in 1/97 (mg/L-N)	Nitrate in 4/97 (mg/L-N)	Nitrate in 7/97 (mg/L-N)	Trend from 4/97 to 7/97
INT-60-P3	41.6	112.0	100.0	91.0	74.4	50.5	91.2	up
INT-120	63.1	23.3	66.0	21.1	47.4	31.0	38.4	up
INT-123	25.6	23.2	21.0	20.1	23.3	19.2	27.3	up
INT-130R	new well	30.6	32.0	32.0	33.0	30.6	31.9	similar
INT-130RS	new well	23.2	20.0	17.5	14.0	12.5	12.7	similar
S1-106A	92.3	16.6	23.3	11.4	16.2	15.4	12.9	down

Explanation

mg/L-N      milligrams per liter as nitrogen  
 <            less than

These high and low values of pH, if representative, are less conducive to intrinsic bioremedial activity.

## **2.5 Contour maps**

Contour maps for water level, dissolved oxygen (DO), total organic carbon (TOC), benzene, 1,2-dichloroethane (1,2-DCA), vinyl chloride, and affected groundwater for the S1 and INT units in July 1997 are presented and discussed below. It should be noted that contours are inferred from: the July 1997 sampling results at progress monitoring wells; results of previous quarterly sampling at wells which are now plugged; and monitoring data obtained during active operations (between January 1992 and December 1995). Therefore, the contours presented are not based solely on the data shown on the contour maps, but incorporate judgement based on four years of historic monitoring data at a significantly wider well network. Former wells are shown on the chemical plume maps. (For ease of reference, all maps follow the end of text Section 3.0.)

### **2.5.1 Water levels**

Tables 2-4 through 2-9 present depth-to-water readings, top-of-casing well elevations, and calculated water levels from April 8-12, 1996 through August 18, 1997. For July 1997, the depth-to-water measurements presented in Table 2-4 include the preliminary round of soundings performed at monitoring wells on July 14, before starting groundwater sampling, and a round performed on July 15 at the newly-installed wells mentioned in Section 2.0., which are only used for water-level measurements. The depth-to-water measurements presented in Appendix A are the measurements made on the actual day of sampling, which may be different for some wells. The Appendix A water levels were not used to generate water-level maps. The final column in Tables 2-4 through 2-6 presents average water levels over this time period.

Figures 2-4 through 2-7 show interpreted groundwater levels in the S1 and INT units for July and August 1997. Required groundwater level monitoring is quarterly; additional monthly measurements have been performed to enable average water levels to be developed.

**Table 2-4**

**Depth to water- S1 wells and staff gauges  
 (ft)**

Well/gauge/area	4/8-12/96	7/10-10/96	8/6/96	10/7/96	11/18/96	12/9/96	1/20-24/97	2/13/97	3/22/97	4/14/97	5/31/97	7/14/97
South Pond	NM	NM	7.80	NM	NM	9.23	NM	9.38	9.44	NM	9.66	9.08
East Slough	NM	NM	NM	NM	NM	NM	NM	NM	8.96	NM	9.40	9.28
FLTG-14	2.48	4.82	4.40	1.74	2.93	2.84	1.63	0.42	1.21	1.31	1.05	2.38
P-5	6.40	9.68	10.11	9.34	8.88	8.66	NM	7.60	8.07	8.23	7.85	8.76
P-6	9.80	9.07	9.20	9.00	9.43	9.71	NM	4.04	8.21	8.52	4.26	7.84
S1-31	7.86	7.82	8.66	7.48	7.18	7.38	6.82	6.11	8.14	6.43	8.05	8.86
S1-33	3.68	3.72	4.78	3.43	3.71	3.60	3.04	2.15	1.88	2.22	1.83	2.76
S1-51-P3	3.47	4.02	4.43	3.67	3.23	3.03	2.61	2.03	2.47	2.65	2.30	3.10
S1-64	6.92	6.47	6.66	6.61	6.66	6.05	NM	3.74	5.05	5.23	4.80	5.53
S1-106	3.12	NM	NM	NM	3.48	3.14	NM	0.92	1.47	1.56	1.35	2.96
S1-108A	2.70	3.13	4.34	2.28	2.81	2.37	0.70	0.31	0.60	0.87	0.37	2.48
S1-108R	NM	7.72	NM	6.71	7.31	6.81	4.60	4.34	4.62	5.02	4.47	7.08
S1-108A	6.62	6.06	6.66	5.61	6.04	5.18	4.26	3.86	4.30	4.59	4.01	5.32
S1-111	3.60	4.03	4.49	3.79	3.32	3.12	2.72	2.20	2.53	2.70	2.38	3.11
S1-118	9.23	9.30	10.32	8.95	9.68	9.65	8.99	7.77	7.02	7.50	8.72	8.15
S1-119	8.10	8.80	8.98	8.81	9.12	9.41	NM	8.48	7.56	7.77	7.25	7.54
S1-121	6.52	9.70	10.97	8.79	9.69	9.00	7.88	7.50	7.14	7.45	7.03	8.86
S1-123	3.80	2.84	3.98	1.67	2.44	1.95	0.10	0.00	0.00	0.35	0.00	1.96
S1-126	8.68	4.67	5.18	4.85	5.31	5.65	NM	4.63	3.76	4.01	3.45	3.90
S1-131	3.66	4.50	5.44	3.24	4.03	3.70	5.80	4.25	5.45	5.61	5.24	6.14
S1-136	7.62	7.80	8.70	7.18	7.93	7.89	6.96	5.73	4.90	5.24	4.42	6.25
S1-138	NM	NM	NM	NM	NM	NM	NM	NM	5.21	NM	5.05	5.74
S1-139	NM	NM	NM	NM	NM	NM	NM	NM	5.47	NM	5.20	5.88
S1-140	NM	NM	NM	NM	NM	NM	NM	NM	6.88	NM	6.62	6.68
S1-141	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	5.91
S1-142	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	7.64
												6.98

**GROUNDWATER AND SUBSOIL REMEDIATION**  
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**Table 2-5**

**Depth to water - INT wells  
 (ft)**

Well/gauge/date	4/8-12/96	7/10-16/96	8/8/96	10/7/96	11/18/96	12/9/96	1/20-24/97	2/13/97	3/22/97	4/14/97	5/31/97	7/14/97
FLTG-13	2.98	6.04	4.99	2.37	3.48	3.26	1.99	0.82	1.47	1.63	1.36	2.86
INT-22	5.60	6.66	6.56	5.29	5.48	5.35	4.88	4.09	3.80	4.12	3.85	4.68
INT-26	3.58	4.06	4.56	3.68	3.28	3.07	2.56	2.10	2.52	2.60	2.33	3.15
INT-59-P2	2.80	6.75	7.17	6.78	6.28	5.77	5.38	4.74	5.17	5.36	4.98	5.82
INT-60-P3	3.20	6.54	7.00	6.06	6.20	5.56	4.99	4.42	4.87	5.07	4.66	5.63
INT-101	6.20	6.61	6.96	5.48	6.05	5.72	4.99	4.36	4.03	4.41	4.12	4.95
INT-106	3.25	3.63	4.82	2.82	3.31	2.86	1.63	0.85	1.50	0.39	0.91	2.91
INT-108	4.98	5.32	5.95	4.91	4.73	4.46	3.59	3.13	3.57	3.83	3.30	4.57
INT-118	10.33	10.91	11.38	10.00	10.67	10.66	10.12	9.28	8.25	8.60	8.03	9.26
INT-120	6.70	11.71	10.09	8.84	8.95	8.65	7.45	7.16	7.46	7.75	7.25	8.57
INT-122	6.90	9.89	10.88	9.19	9.60	9.23	7.88	7.48	7.64	8.06	7.45	9.10
INT-127	2.70	3.34	3.96	2.39	2.66	2.18	1.00	0.57	0.72	1.50	0.80	2.25
INT-130R	NM	3.35	4.46	2.45	3.01	2.68	NM	0.80	0.70	1.50	0.80	2.62
INT-130RS	NM	3.95	4.88	2.85	3.41	2.99	NM	1.00	1.15	1.60	1.09	2.91
INT-134	8.88	9.29	10.05	9.68	8.92	10.99	8.11	7.52	7.12	7.44	7.25	8.15
INT-135	13.30	12.60	13.41	12.06	15.35	12.17	11.62	10.96	10.43	10.78	10.60	11.54
INT-144	13.00	16.45	18.73	15.62	15.67	15.53	15.17	14.52	13.82	13.91	14.03	16.16
INT-147	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
INT-148	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	9.11
INT-149	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	12.89
INT-150	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	4.15
INT-151	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	4.20
INT-152	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	4.47
INT-153	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	6.49
INT-154	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	6.86
INT-155	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	7.78
INT-156	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
INT-214	3.80	3.52	4.23	3.03	3.07	2.98	2.62	1.78	1.72	2.01	1.72	2.47
INT-217	3.70	4.47	4.55	3.48	3.37	3.25	2.60	2.12	1.82	2.13	1.92	2.78
INT-233	7.30	6.82	7.66	6.48	6.44	6.38	5.92	5.12	5.15	5.50	5.10	5.85

**GROUNDWATER AND SUBSOIL REMEDIATION**  
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**Table 2-6**

**Top-of-casing well elevation - S1 wells and staff gauges  
 (ft-MSL)**

Well/gauge/date	4/8-12/96	7/10-16/96	8/8/96	10/7/96	11/18/96	12/9/96	1/20-24/97	2/13/97	3/22/97	4/14/97	5/31/97	7/14/97
South Pond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
East Slough	not installed	0.00	0.00	0.00	0.00							
FLTG-14	11.48	11.48	11.48	11.48	11.48	11.48	11.48	11.48	11.48	11.48	11.48	11.48
P-5	18.11	17.85	17.85	17.85	17.85	17.85	17.85	17.85	17.85	17.85	17.85	17.85
P-6	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45	18.45
S1-31	13.12	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46	16.46
S1-33	11.56	12.78	12.78	12.78	12.78	12.78	12.78	12.78	12.78	12.78	12.78	12.78
S1-51-P3	12.20	12.22	12.22	12.22	12.22	12.22	12.22	12.22	12.22	12.22	12.22	12.22
S1-64	14.67	14.67	14.67	14.61	14.61	14.61	14.61	14.61	14.61	14.61	14.61	14.61
S1-106	12.25	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91	11.91
S1-106A	11.18	11.18	11.18	11.22	11.22	11.22	11.22	11.22	11.22	11.22	11.22	11.22
S1-106R	not built	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53	15.53
S1-108A	14.26	14.26	14.26	14.26	14.26	14.26	14.26	14.26	14.26	14.26	14.26	14.26
S1-111	12.39	12.39	12.39	12.30	12.30	12.30	12.30	12.30	12.30	12.30	12.30	12.30
S1-118	18.99	18.99	18.99	18.92	18.92	18.92	18.92	18.92	18.92	18.92	18.92	18.92
S1-119	16.33	18.49	18.49	18.49	18.49	18.49	18.49	18.49	18.49	18.49	18.49	18.49
S1-121	16.04	17.85	17.85	17.85	17.85	17.85	17.85	17.85	17.85	17.85	17.85	17.85
S1-123	10.70	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77	10.77
S1-126	15.18	14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75
S1-131	12.40	12.40	12.40	12.38	12.38	12.38	12.38	15.21	15.21	15.21	15.21	15.21
S1-135	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02	18.02
S1-136	not built	14.98	14.98	14.98	14.98							
S1-138	not built	14.99	14.99	14.99	14.99							
S1-139	not built	15.84	15.84	15.84	15.84							
S1-140	not built	not built	14.27	14.27								
S1-141	not built	not built	15.15	15.15								
S1-142	not built	not built	14.81	14.81								

**GROUNDWATER AND SUBSOIL REMEDIATION**  
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**Table 2-7**

**Top-of-casing well elevation - INT wells  
 (ft-MSL)**

Well/gauge/date	4/8-12/96	7/10-16/96	8/8/96	10/7/96	11/18/96	12/9/96	1/20-24/97	2/13/97	3/22/97	4/14/97	5/31/97	7/14/97
FLTG-13	12.05	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81
INT-22	12.44	14.27	14.27	14.27	14.27	14.27	14.27	14.27	14.27	14.27	14.27	14.27
INT-28	11.93	12.33	12.33	12.33	12.33	12.33	12.33	12.33	12.33	12.33	12.33	12.33
INT-59-P2	11.68	14.93	14.93	14.93	14.93	14.93	14.93	14.93	14.93	14.93	14.93	14.93
INT-60-P3	12.02	14.68	14.68	14.68	14.68	14.68	14.68	14.68	14.68	14.68	14.68	14.68
INT-101	13.15	13.12	13.15	13.15	13.15	13.15	13.15	13.15	13.15	13.15	13.15	13.15
INT-108	11.77	11.62	11.62	11.62	11.62	11.62	11.62	11.62	11.62	11.62	11.62	11.62
INT-108	13.54	13.55	13.55	13.55	13.55	13.55	13.55	13.55	13.55	13.55	13.55	13.55
INT-118	19.63	19.58	19.58	19.58	19.58	19.58	19.58	19.58	19.58	19.58	19.58	19.58
INT-120	15.13	17.61	17.61	17.61	17.61	17.61	17.61	17.61	17.61	17.61	17.61	17.61
INT-123	15.10	18.04	18.04	18.04	18.04	18.04	18.04	18.04	18.04	18.04	18.04	18.04
INT-127	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18	11.18
INT-130R	11.24	11.24	11.24	11.24	11.24	11.24	11.24	11.24	11.24	11.24	11.24	11.24
INT-130RS	11.63	11.63	11.63	11.63	11.63	11.63	11.63	11.63	11.63	11.63	11.63	11.63
INT-134	16.79	14.81	14.81	14.81	14.81	14.81	14.86	14.86	14.86	14.86	14.86	14.86
INT-136	17.99	17.93	17.93	17.93	17.93	17.93	18.02	18.02	18.02	18.02	18.02	18.02
INT-144	18.83	18.83	18.83	18.83	18.83	18.83	18.89	18.89	18.89	18.89	18.89	18.89
INT-147	not built	not built	not built	not built	not built	not built	not built	not built	not built	not built	not built	not built
INT-148	not built	not built	not built	not built	not built	not built	not built	not built	not built	15.54	15.54	15.54
INT-149	not built	not built	not built	not built	not built	not built	not built	not built	not built	19.52	19.52	19.52
INT-150	not built	not built	not built	not built	not built	not built	not built	not built	not built	13.36	13.36	13.36
INT-151	not built	not built	not built	not built	not built	not built	not built	not built	not built	12.92	12.92	12.92
INT-152	not built	not built	not built	not built	not built	not built	not built	not built	not built	12.59	12.59	12.59
INT-153	not built	not built	not built	not built	not built	not built	not built	not built	not built	14.74	14.74	14.74
INT-154	not built	not built	not built	not built	not built	not built	not built	not built	not built	14.58	14.58	14.58
INT-155	not built	not built	not built	not built	not built	not built	not built	not built	not built	14.65	14.65	14.65
INT-156	not built	not built	not built	not built	not built	not built	not built	not built	not built	not built	not built	not built
INT-214	11.93	11.93	11.93	11.93	11.93	11.93	11.93	11.93	11.93	11.93	11.93	11.93
INT-217	11.13	11.13	11.13	11.13	11.13	11.13	11.13	11.13	11.13	11.13	11.13	11.13
INT-233	15.38	15.38	15.38	15.38	15.38	15.38	15.38	15.38	15.38	15.38	15.38	15.38

**GROUNDWATER AND SUBSOIL REMEDIATION**  
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**Table 2-8**

**Groundwater elevation - S1 wells and staff gauges  
 (ft-MSL)**

Well/gauge/date	4/8-12/96	7/10-16/96	8/8/96	10/7/96	11/18/96	12/9/96	1/20-24/97	2/13/97	3/22/97	4/14/97	5/31/97	7/14/97
South Pond			7.90			9.23		9.38	9.44		9.65	9.08
East Slough									8.96		9.40	9.26
FLTG-14	9.10	8.66	7.06	9.74	8.66	8.64	9.85	11.06	10.27	10.17	10.43	9.12
P-5	8.71	8.17	7.74	8.61	8.97	9.20		10.25	9.78	9.62	10.00	9.10
P-6	5.99	9.38	9.26	9.45	9.02	8.74		14.41	10.24	9.93	14.19	10.61
S1-31	5.57	8.64	7.80	9.00	9.28	9.08	9.64	10.35	8.32	10.03	10.41	9.80
S1-33	7.88	9.06	8.05	9.35	9.07	9.18	9.74	10.63	10.90	10.56	10.95	10.02
S1-51-P3	8.73	8.20	7.79	8.66	8.99	9.19	9.61	10.19	9.75	9.57	9.92	9.12
S1-64	8.75	8.20	8.02	9.00	7.96	8.56		10.87	9.56	9.38	9.81	9.08
S1-106	9.13				8.43	8.77		10.99	10.44	10.35	10.56	8.95
S1-108A	8.48	8.05	6.84	8.94	8.41	8.85	10.52	10.91	10.62	10.36	10.85	8.74
S1-108R		7.81		8.82	8.22	8.72	10.93	11.19	10.91	10.51	11.06	8.45
S1-108A	8.64	8.20	7.60	8.65	8.22	9.08	10.00	10.40	9.96	9.67	10.25	8.94
S1-111	8.79	8.36	7.90	8.51	8.98	9.18	9.58	10.10	9.77	9.60	9.92	9.19
S1-118	9.76	9.09	8.67	9.97	9.24	9.27	9.93	11.15	11.90	11.42	12.20	10.77
S1-119	7.23	9.89	9.51	9.68	9.37	9.08		10.01	10.93	10.72	11.24	10.95
S1-121	8.52	8.15	6.88	9.06	8.16	8.85	9.97	10.35	10.71	10.40	10.82	8.99
S1-123	6.90	7.93	6.79	9.10	8.33	8.82	10.67	10.77	10.77	10.42	10.77	8.81
S1-126	6.50	10.08	9.57	9.90	9.44	9.20		10.22	10.99	10.74	11.30	10.85
S1-131	8.74	7.90	6.96	9.14	8.35	8.68	6.58	10.96	9.76	9.60	9.97	9.07
S1-135	10.40	10.22	9.32	10.84	10.09	10.13	11.06	12.29	13.12	12.78	13.80	11.77
S1-136									9.77		9.93	9.24
S1-138									9.52		9.79	9.11
S1-139									8.96		9.22	9.16
S1-140												8.36
S1-141												7.51
S1-142												7.83

**GROUNDWATER AND SUBSOIL REMEDIATION**  
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**French Ltd. Project**  
**FLTG, Incorporated**

**Table 2-9**

**Groundwater elevation - INT wells**  
**(ft-MSL)**

Well/gauge/date	4/8-12/96	7/10-16/96	8/8/96	10/7/96	11/18/96	12/9/96	1/20-24/97	2/13/97	3/22/97	4/14/97	5/31/97	7/14/97
FLTG-13	9.07	6.77	6.82	9.44	8.33	8.55	9.82	10.99	10.34	10.18	10.45	8.95
INT-22	6.84	8.62	7.71	8.98	8.79	8.92	9.39	10.18	10.47	10.15	10.42	9.59
INT-28	8.35	8.27	7.77	8.65	9.06	9.26	9.77	10.23	9.81	9.73	10.00	9.18
INT-58-P2	8.88	8.18	7.76	8.15	8.66	9.16	9.56	10.19	9.76	9.58	9.96	9.11
INT-60-P3	8.82	8.14	7.68	8.62	8.48	9.12	9.69	10.28	9.81	9.81	10.02	9.05
INT-101	6.95	6.61	6.20	7.67	7.10	7.43	8.16	8.79	9.12	8.74	9.03	8.20
INT-106	8.52	7.99	6.80	8.80	8.31	8.76	9.99	10.77	10.12	11.23	10.71	8.71
INT-108	8.56	8.23	7.60	8.64	8.82	9.09	9.96	10.42	9.98	9.72	10.25	8.98
INT-118	9.20	8.67	8.20	9.58	8.91	8.92	9.46	10.30	11.33	10.98	11.66	10.32
INT-120	8.43	5.90	7.52	8.77	8.66	8.96	10.16	10.46	10.15	9.86	10.36	9.04
INT-123	8.20	8.15	7.16	8.85	8.44	8.81	10.16	10.56	10.40	9.99	10.59	8.94
INT-127	8.48	7.84	7.22	8.79	8.52	9.00	10.18	10.61	10.46	9.68	10.38	8.93
INT-130R		7.89	6.78	8.79	8.23	8.66		10.64	10.54	9.74	10.44	8.72
INT-130RS		7.68	6.76	8.78	8.22	8.64		10.63	10.48	10.03	10.54	8.72
INT-134	7.91	5.62	4.76	5.13	5.89	3.82	6.75	7.34	7.74	7.42	7.81	6.71
INT-135	4.69	6.33	4.52	5.87	2.58	5.76	6.40	7.06	7.59	7.24	7.42	6.48
INT-144	5.83	2.38	2.10	3.21	3.16	3.30	3.72	4.37	5.07	4.98	4.86	3.73
INT-147												
INT-148												6.43
INT-149												6.63
INT-150												9.21
INT-151												8.72
INT-152												8.12
INT-153												8.26
INT-154												7.72
INT-155												6.87
INT-156												
INT-214	8.13	8.41	7.70	8.90	8.86	8.95	9.41	10.15	10.21	9.92	10.21	9.46
INT-217	7.43	6.66	6.58	7.65	7.76	7.88	8.53	9.01	9.31	9.00	9.21	8.35
INT-233	8.08	8.56	7.73	8.90	8.94	9.00	9.46	10.26	10.23	9.88	10.28	9.53

Water-level contour maps for the post-operational phase tend to reflect short-term, localized influences on water levels. Short-term rainfall events affect the water level in the South Pond and other surface water bodies, which act as localized recharge or discharge areas depending on recent rainfall relative to average. The normal maximum level for the South Pond appears to be controlled by a downstream beaver dam.

Comparison of S1 and INT water-level maps indicates that significant downward leakage from the S1 unit to the INT unit occurs in a localized area south of the west end of the former lagoon, where the C1 clay is absent ("C1 window"). The average hydraulic gradient in the S1 unit is NE towards the C1 window, whereas the average hydraulic gradient in the INT unit is to the SW, away from the C1 window. This trend has been fairly consistent since active remediation ended.

The other fairly consistent feature, seen in the July and August water-level maps, is the extremely low hydraulic gradient south of the former lagoon and east of the C1 window. It appears that the cutoff wall has created virtually stagnant groundwater flow conditions in the area south of the former lagoon.

Three sets of paired S1 unit monitoring wells track head differences across the cutoff wall. The well pairs are P-6/P-5; S1-119/S1-121; and S1-126/S1-64. The first well of each pair is inside the cutoff wall; the second well is outside. Head differences are shown in Figures 2-4 through 2-7. During July and August 1997, hydraulic gradients were outward with from 1.14 to 2.14 feet head difference.

The effectiveness of the steel sheetpile cutoff wall system used at the French Limited site was confirmed by long-term testing described in *INT-11 DNAPL area, cutoff wall installation and permeability certification report*<sup>1</sup>. This report concluded that the cutoff wall is equivalent to a conventional 2.5-foot thick slurry wall with a permeability of  $1 \times 10^{-9}$  cm/sec. Hence, an outward hydraulic gradient will not result in significant outward migration of groundwater. It is expected that, as the phreatophytes inside the wall develop deeper and more effective root systems, there will be an overall change to an inward hydraulic gradient. The reduction in head difference from April 1997 may indicate increased root action within the cutoff wall.

## 2.5.2 Dissolved oxygen

Dissolved oxygen contour maps for July 1997 are presented in Figures 2-8 and 2-9. The S1 unit has a maximum DO concentration of 0.3 mg/L. In the INT unit, two wells (INT-60-P3, and INT-123) show elevated concentrations (> 15 mg/L); both are in areas of historically low TOC concentrations. Elsewhere, the INT unit has a maximum DO concentration of 1.2 mg/L at INT-144 and 0.2 mg/L elsewhere. These results indicate that most of the residual DO that was in the aquifer at the end of

<sup>1</sup> Applied Hydrology Associates, Inc. August 1995.

active remediation has been removed, presumably through continued aerobic bioremediation.

#### **2.5.3 Total organic carbon**

Total organic carbon contour maps for July 1997 are presented in Figures 2-10 and 2-11. TOC concentrations in the S1 unit are very similar to those in April 1997, with a maximum concentration of 43.9 mg/L at S1-131. TOC concentrations in the INT unit are also similar to those in April 1997, but with a notable decline at well INT-217.

#### **2.5.4 Benzene**

Benzene contour maps for July 1997 are presented in Figures 2-12 and 2-13. In both units, there were minor changes in the area of benzene exceeding the MCL. In the S1 unit, benzene at S1-123, previously <5 µg/L, increased to 69 µg/L, while at S1-121 it reduced from 12 µg/L to <5 µg/L. However, in the INT unit, benzene at INT-101 and INT-217, previously <5 µg/L, increased to 11 and 16 µg/L, respectively. Overall, concentrations appear to be fluctuating about a generally declining trend.

#### **2.5.5 1,2-DCA**

1,2-DCA contour maps for July 1997 are presented in Figures 2-14 and 2-15. In the S1 unit, 1,2-DCA at S1-123, previously 28 µg/L, increased to 1,500 µg/L. 1,2-DCA at S1-106A, previously <5 µg/L, increased to 32 µg/L. In the INT unit, 1,2-DCA concentrations are similar to those in April 1997, with a maximum of 390 µg/L at INT-123. Apart from the S1-106A and S1-123 results, concentrations appear to be fluctuating about a generally declining trend.

#### **2.5.6 Vinyl chloride**

Vinyl chloride contour maps for July 1997 are presented in Figures 2-16 and 2-17. In the S1 unit, vinyl chloride at S1-123, previously 2 µg/L, increased to 310 µg/L. In the INT unit, the vinyl chloride concentration at INT-134 and INT-217, previously 81 µg/L and 6 µg/L, respectively, have decreased to <2 µg/L. Generally, concentrations are similar to those in April 1997, with a maximum concentration of 180 µg/L at INT-130RS. Apart from the S1-123 results, concentrations appear to be fluctuating about a generally declining trend.

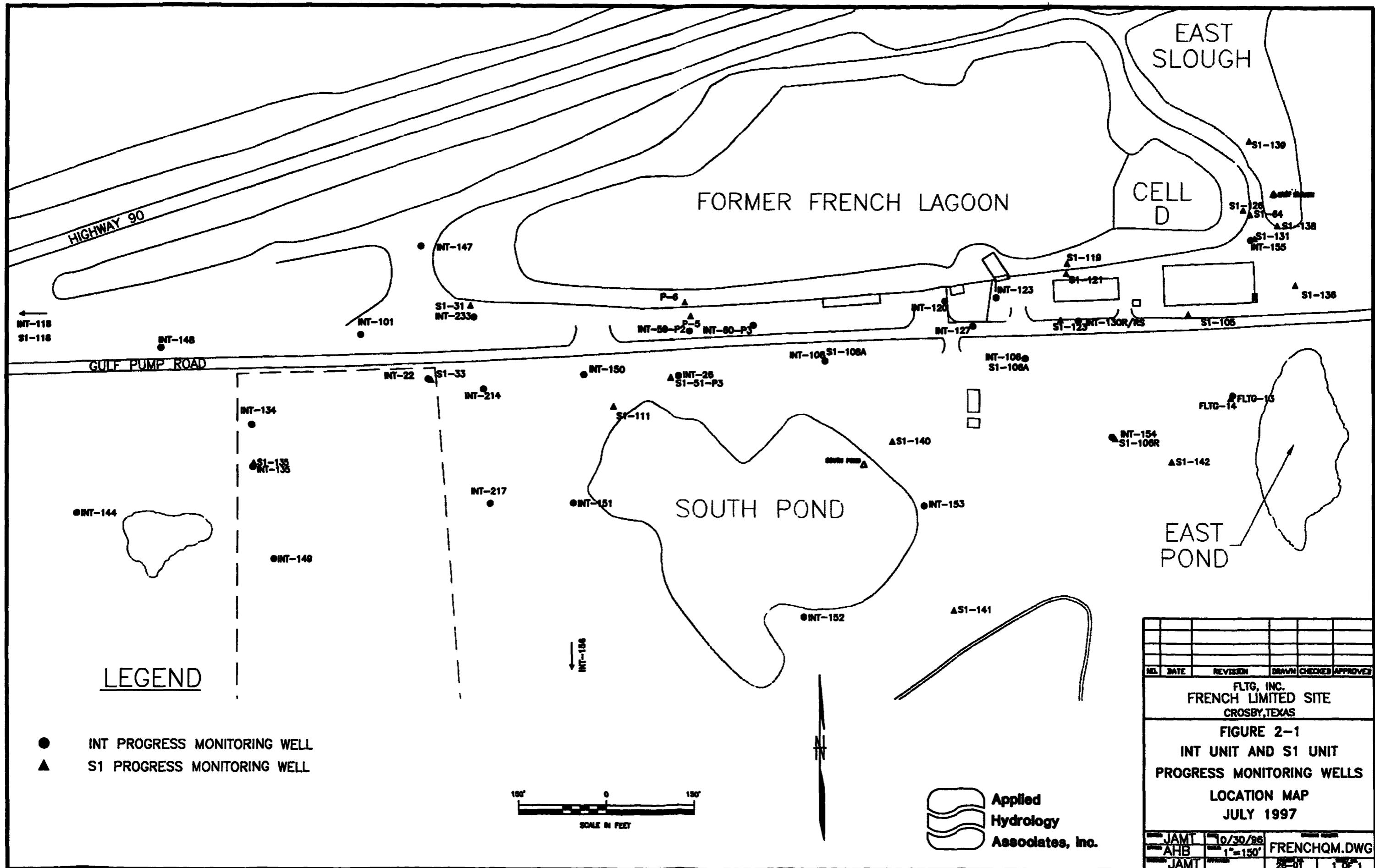
#### **2.5.7 Affected groundwater**

The affected area can be determined from Figures 2-12 through 2-17. The affected S1 and INT groundwater does not represent a threat to the public health or the environment, because FLTG controls all property that contains elevated concentrations of chemicals in groundwater, and all areas containing affected groundwater are potentially subject to institutional controls.

### **3.0 Natural attenuation modeling update**

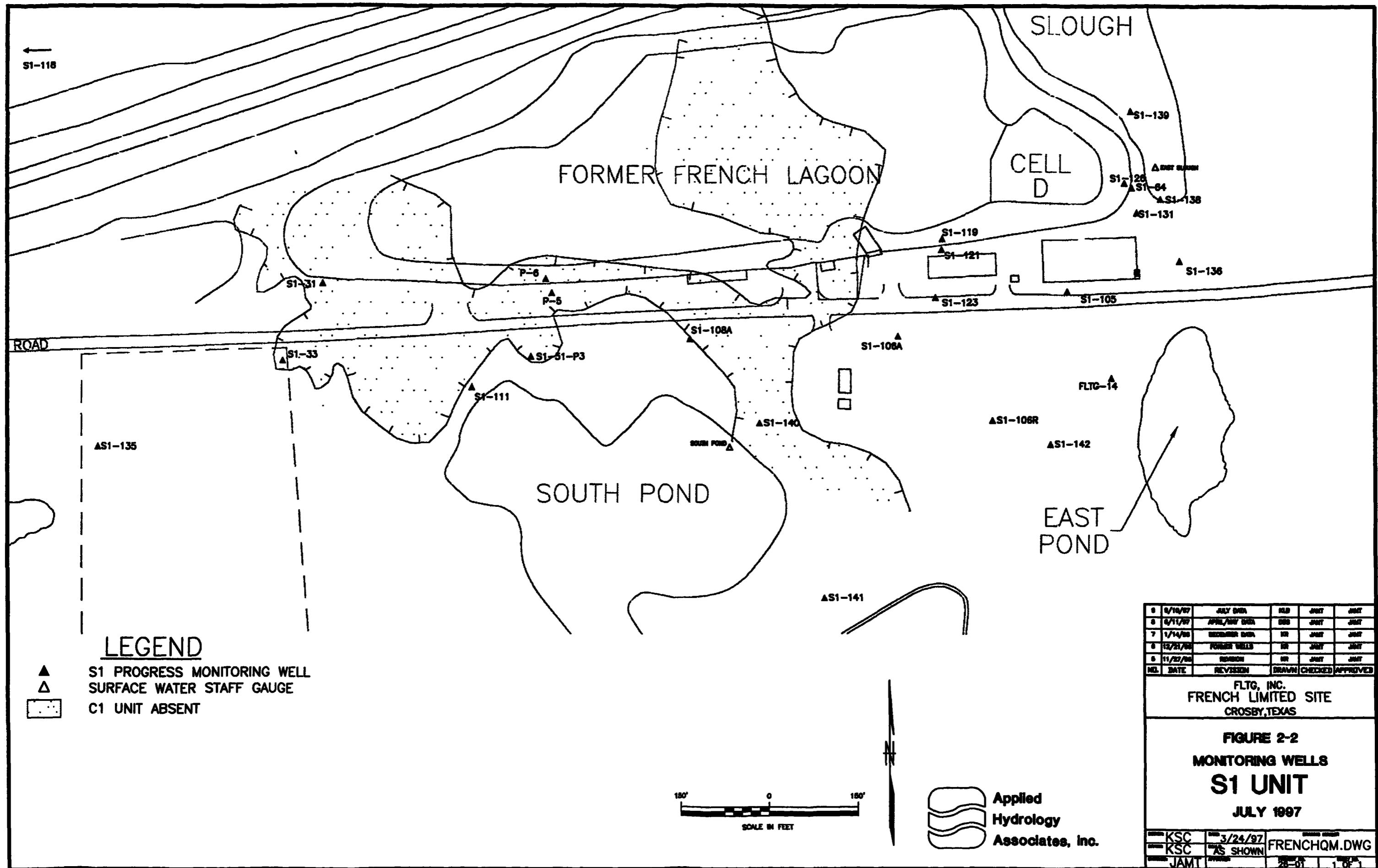
Based on the currently available site database, model re-calibration at this time may be inconclusive. Therefore, the natural attenuation model for the French Limited site will be reviewed in December 1997, based on results through September 1997. Assumptions to be reviewed at that time will include the following:

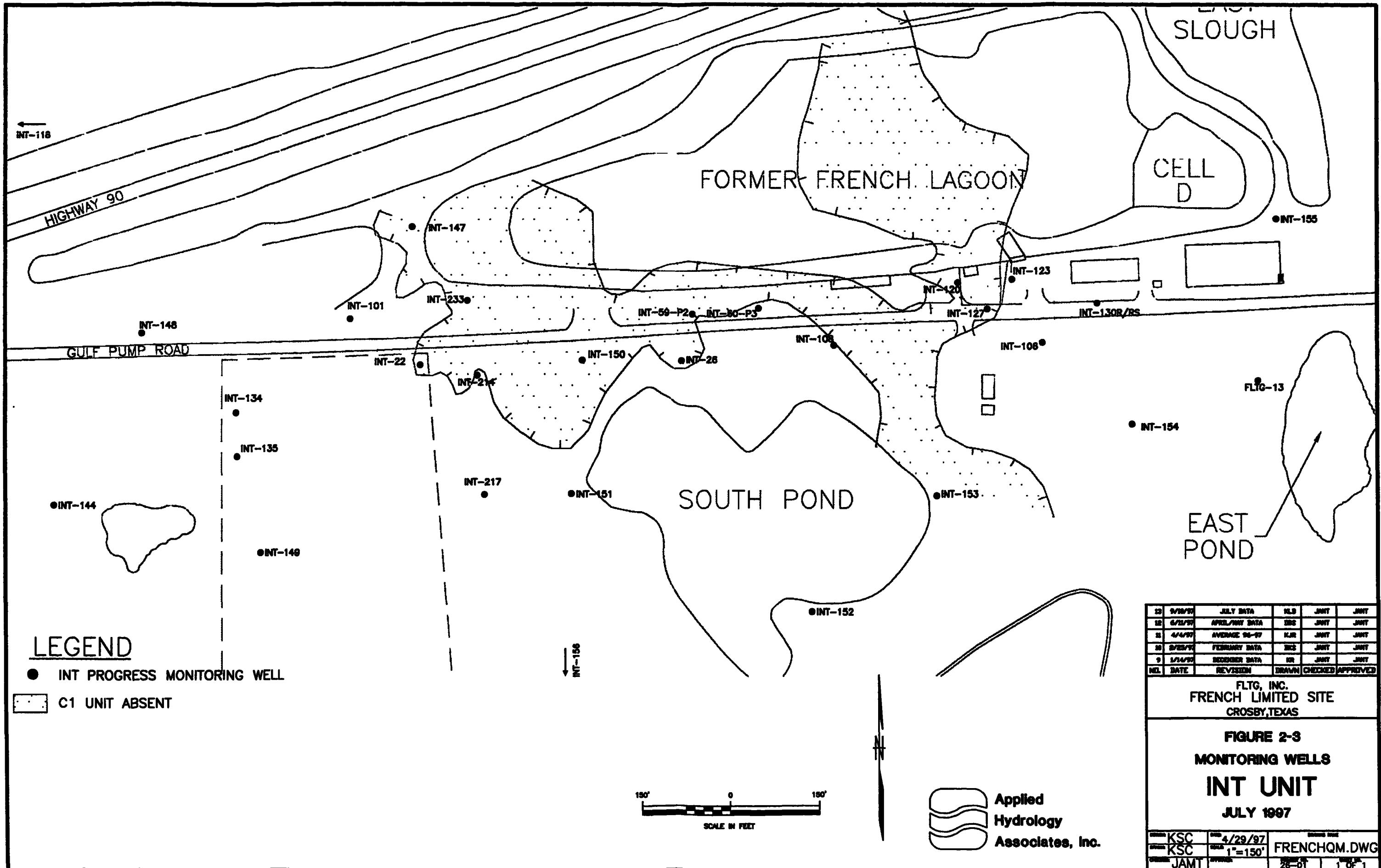
- 1. Actual rather than assumed groundwater flow directions will be used.**
- 2. Groundwater flow directions will be based on progress monitoring well water-level data, plus additional data from newly-constructed piezometers which were installed specifically to provide a wider network of water-level data points for use in natural attenuation modeling.**
- 3. Flow models will include elements representative of sources, sinks, and apparent leakage between the S1 and INT units, based on long-term groundwater level monitoring since the end of active remediation**
- 4. Dispersivity will be increased to take account of "effective" dispersivity caused by short-term changes in groundwater flow directions, based on long-term groundwater level monitoring since the end of active remediation.**
- 5. The model will be calibrated for non-biodegradable TOC and dispersivity: for each model area, these parameters will be adjusted, and the values providing the best match between modeled and field values of DO, TOC, benzene, 1,2-DCA, and vinyl chloride will be selected.**

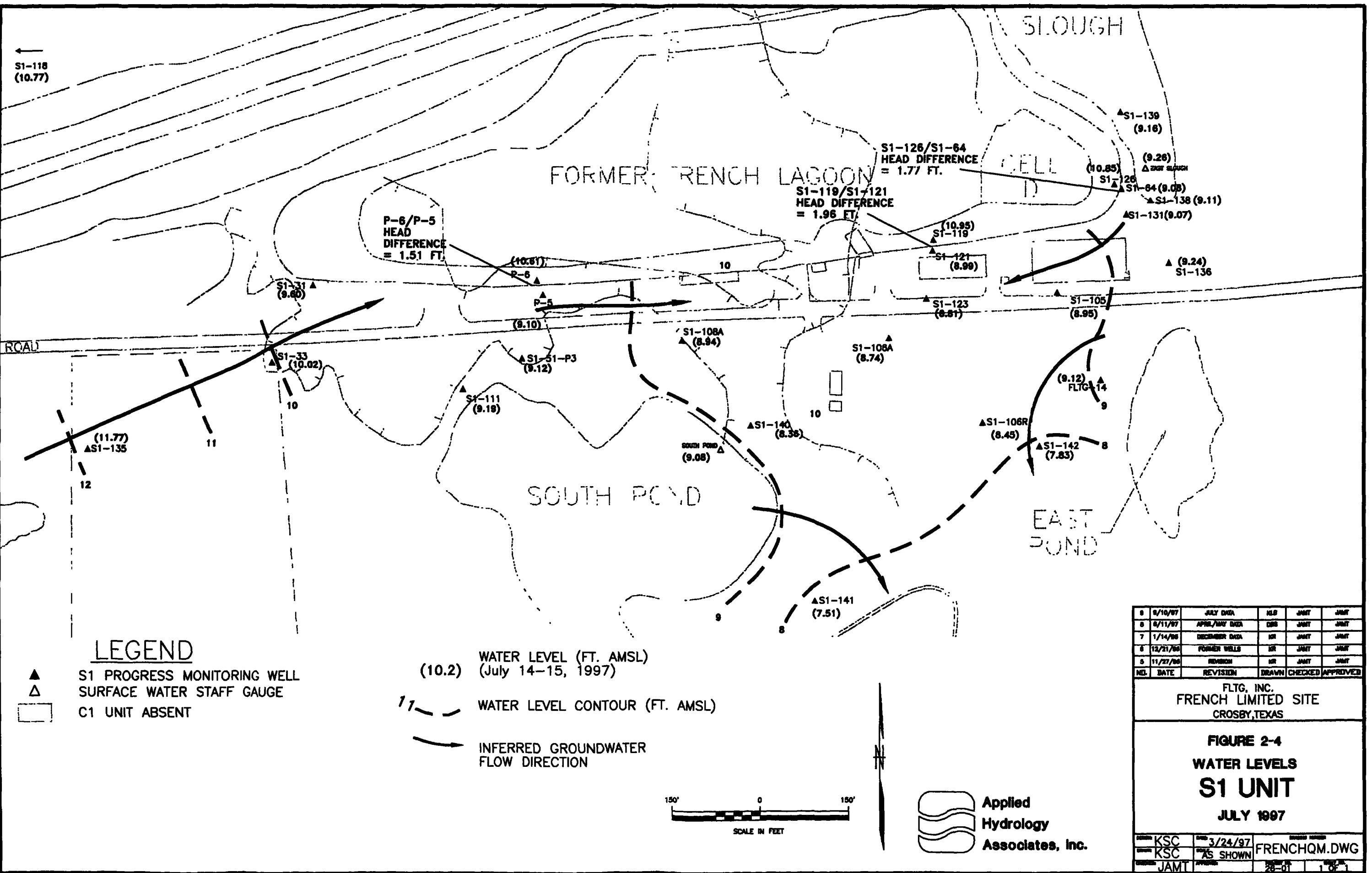


Applied  
Hydrology  
Associates, Inc.

NO.	DATE	REVISION	DRAWN	CHECKED	APPROVED
FLTG, INC. FRENCH LIMITED SITE CROSBY, TEXAS					
FIGURE 2-1 INT UNIT AND S1 UNIT PROGRESS MONITORING WELLS LOCATION MAP JULY 1997					
JAMT	7/0/96				
AHB		1'=150'			
JAMT					
FRENCHQMDWG					







LEGEND

S1 PROGRESS MONITORING WELL  
SURFACE WATER STAFF GAUGE  
C1 UNIT ABSENT

(10.2) WATER LEVEL (FT. AMSL)  
(July 14-15, 1997)

WATER LEVEL CONTOUR (FT. AMSL)

INFERRED GROUNDWATER  
FLOW DIRECTION



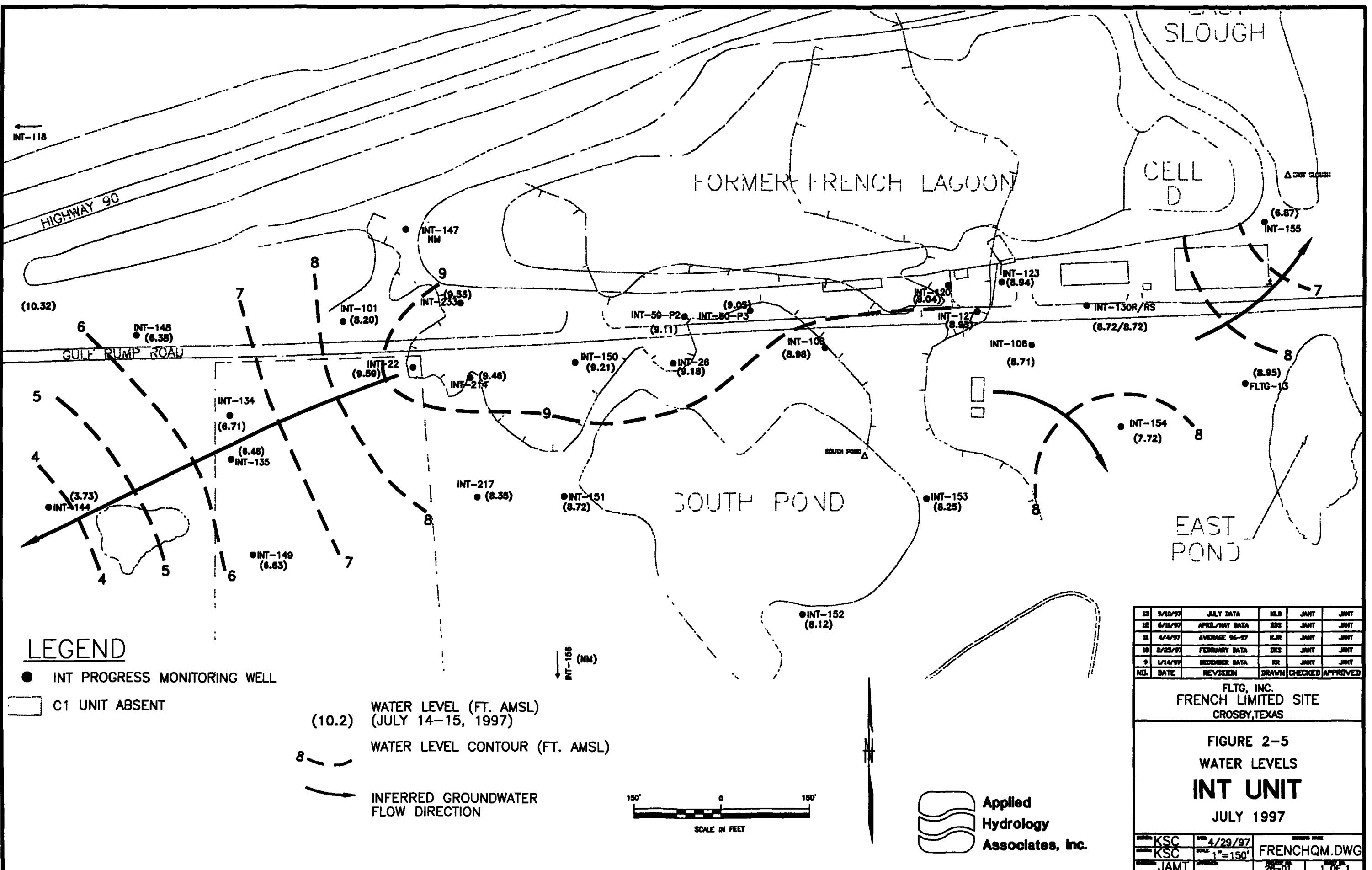
**Applied  
Hydrology  
Associates, Inc.**

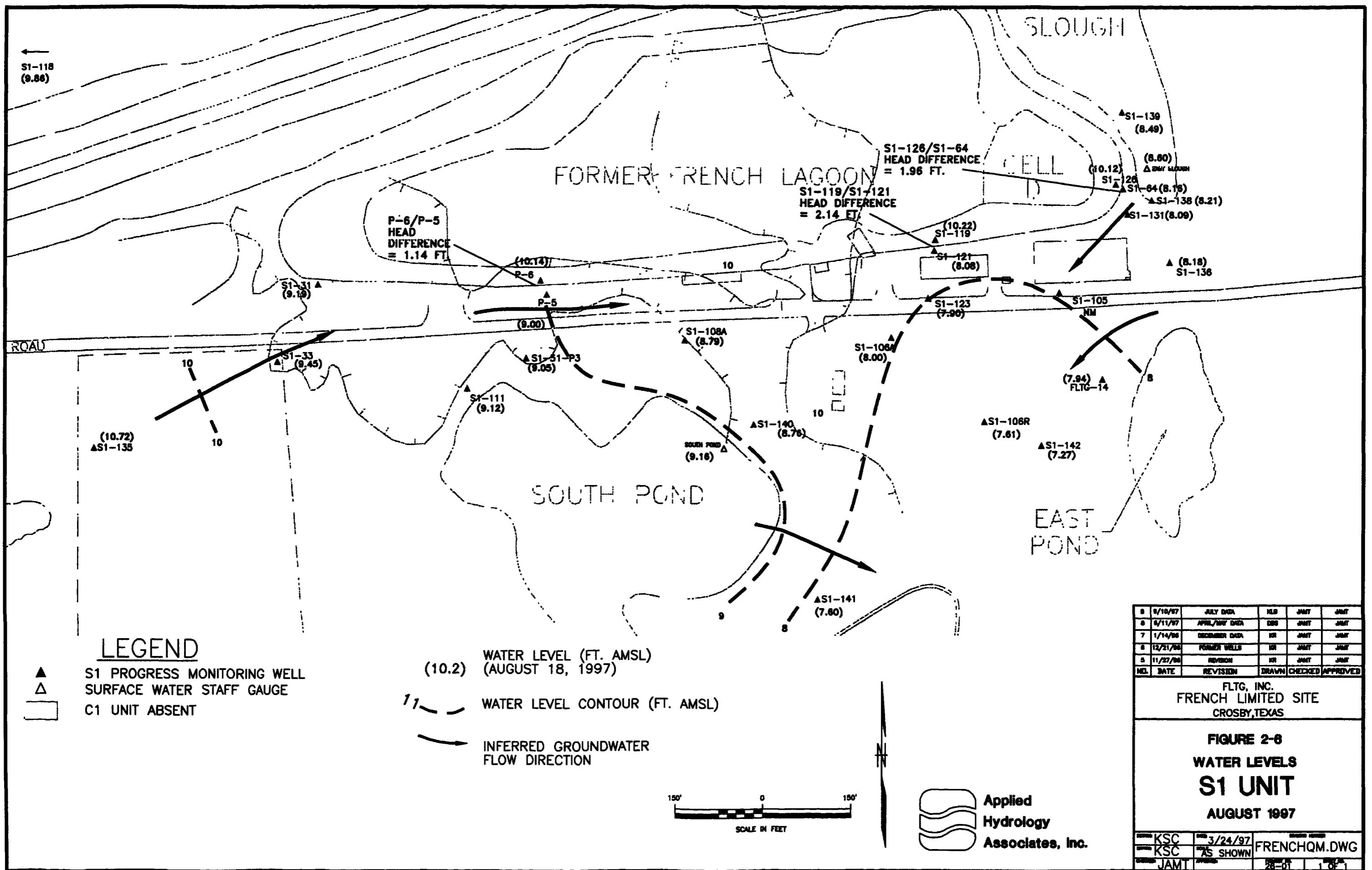
6	8/10/87	JULY DATA	KLS	JANT	JANT
6	8/11/87	APRIL/MAY DATA	DRS	JANT	JANT
7	1/14/88	DECEMBER DATA	KR	JANT	JANT
6	12/21/88	FORMER WELLS	KR	JANT	JANT
5	11/27/88	REVISION	KR	JANT	JANT

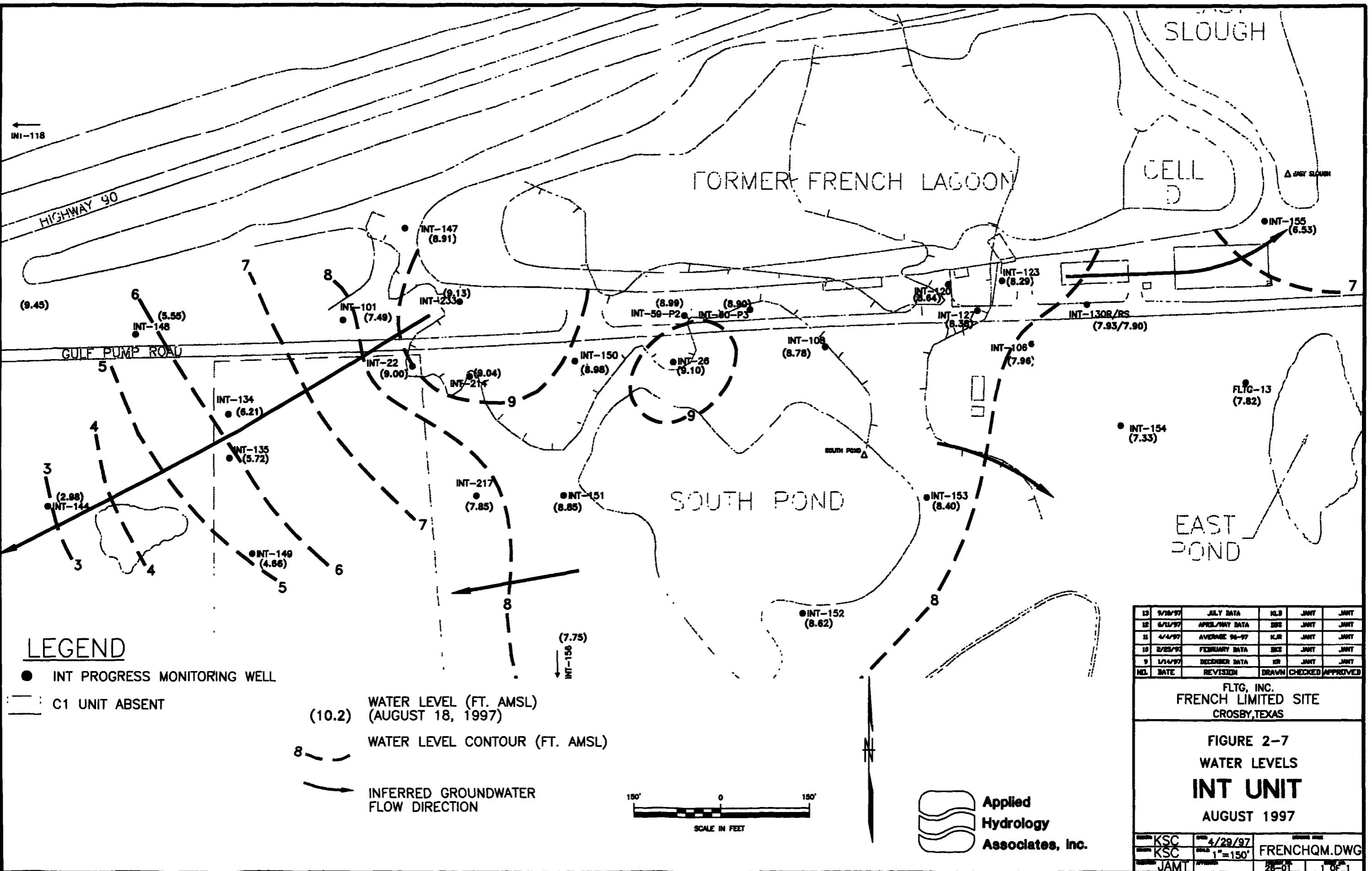
**FLTG. INC.  
FRENCH LIMITED SITE  
CROSBY, TEXAS**

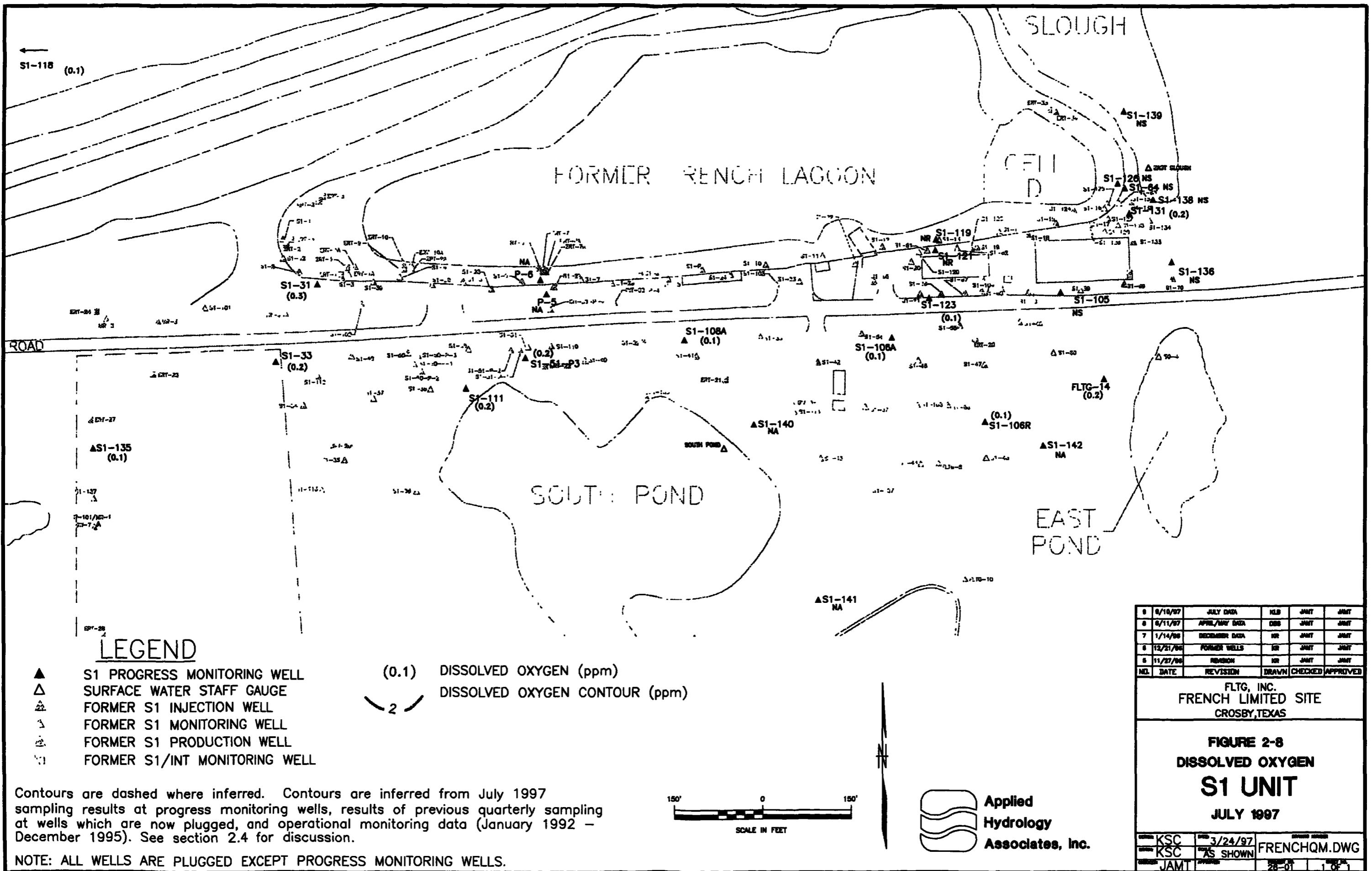
**FIGURE 2-4**  
**WATER LEVELS**  
**S1 UNIT**

KSC	3/24/97	FRENCHQM.DWG
KSC	AS SHOWN	
JAMT	APPROVED	26-01 1 of 1

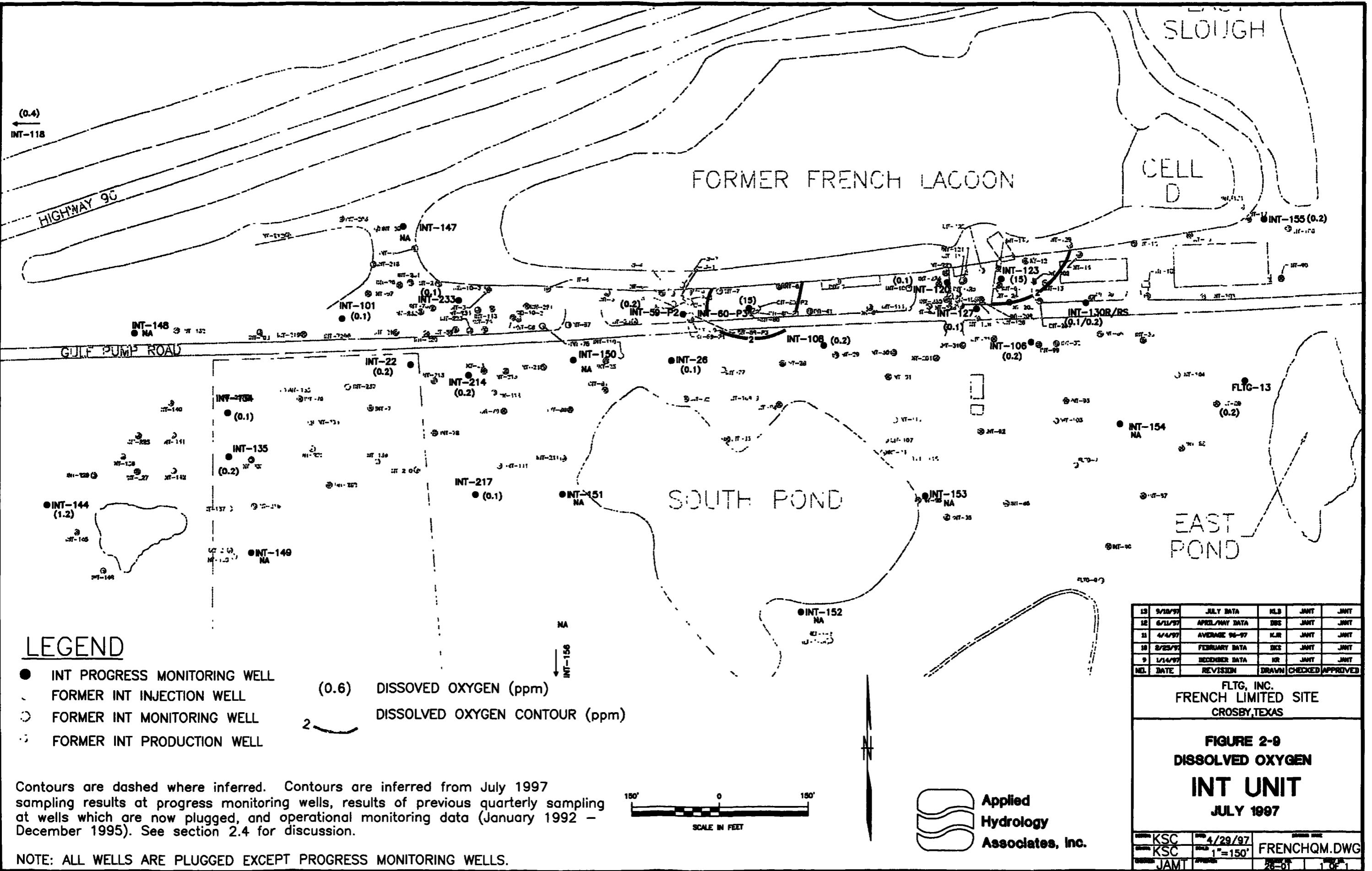


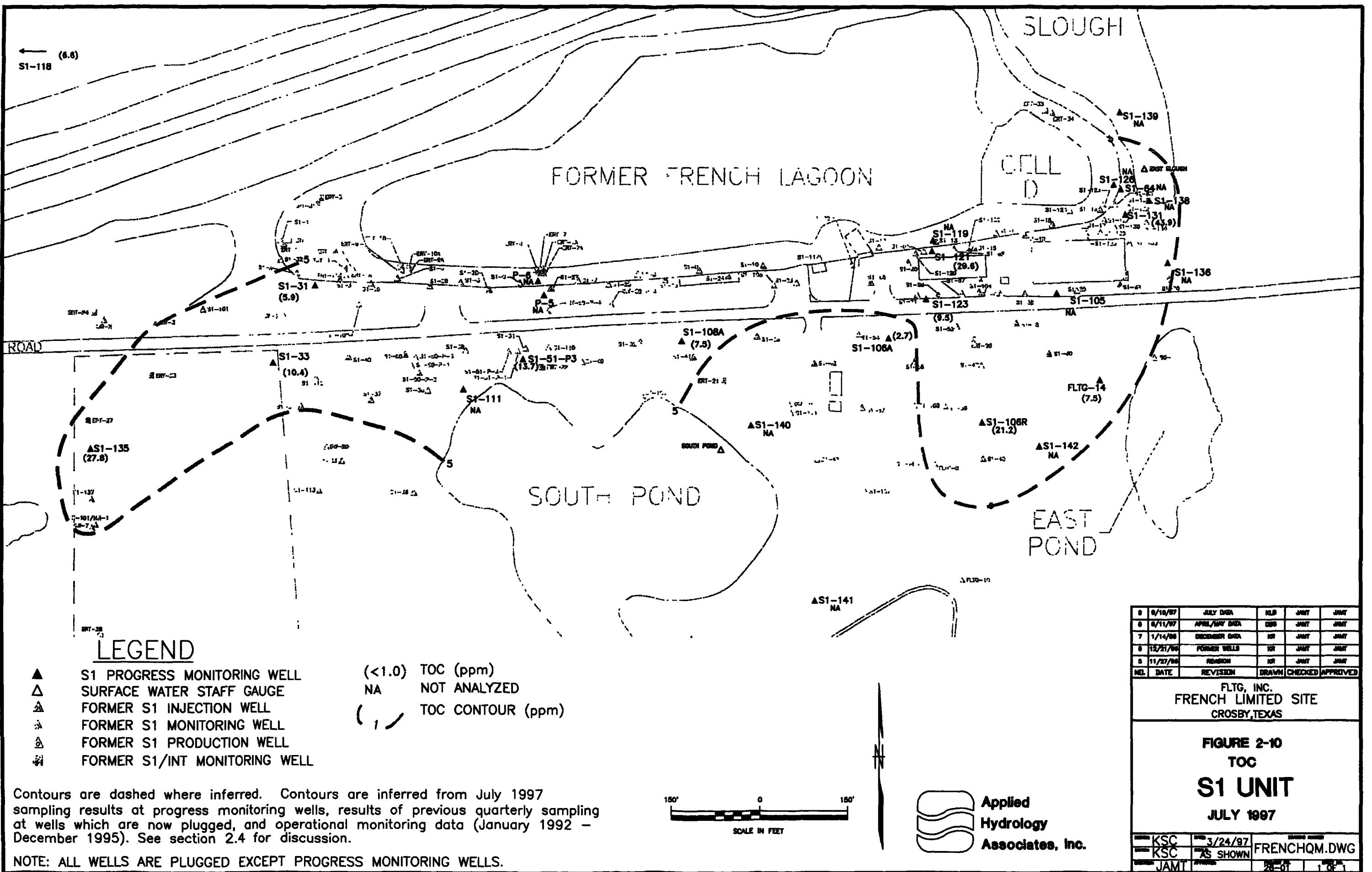


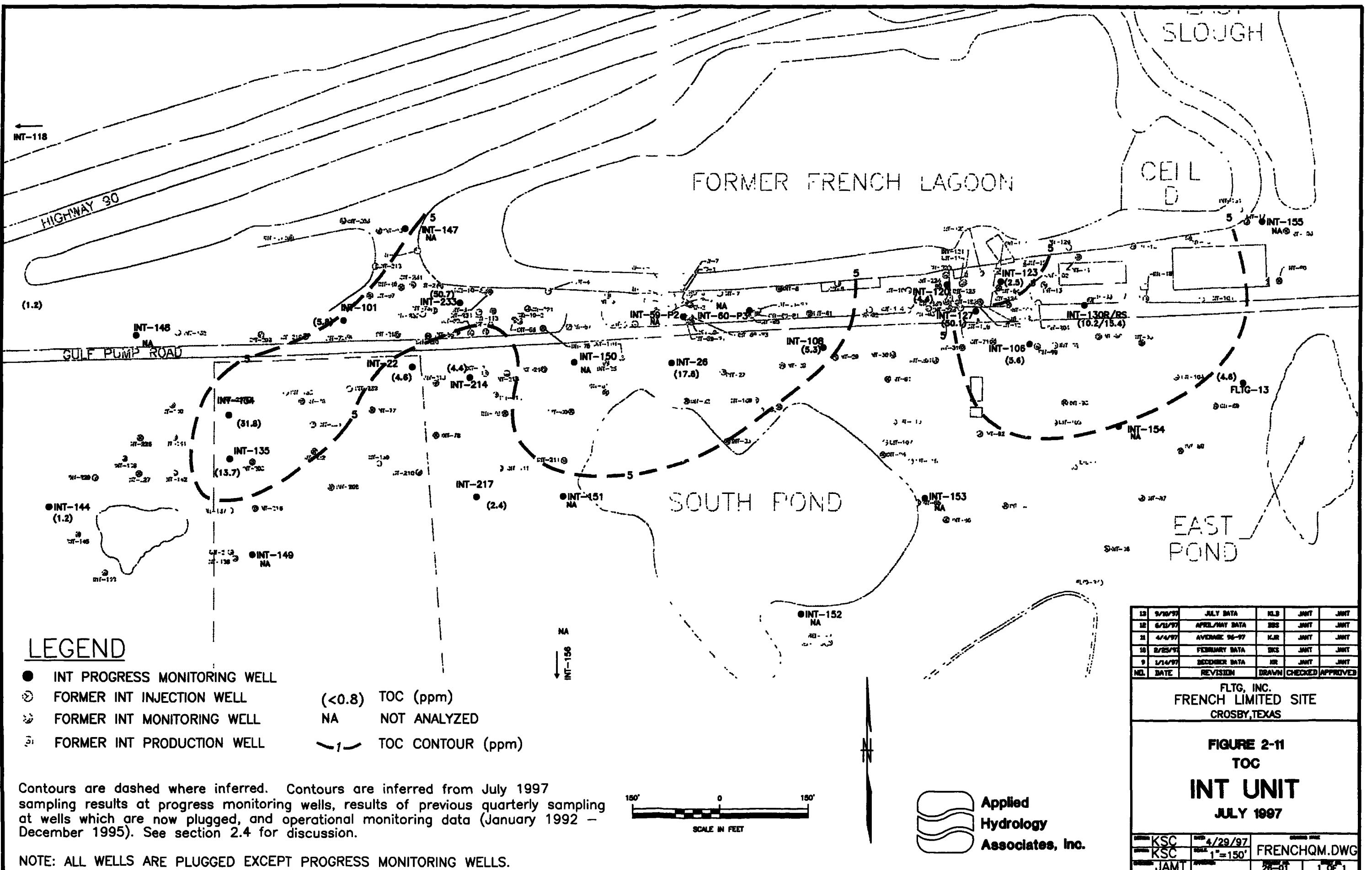


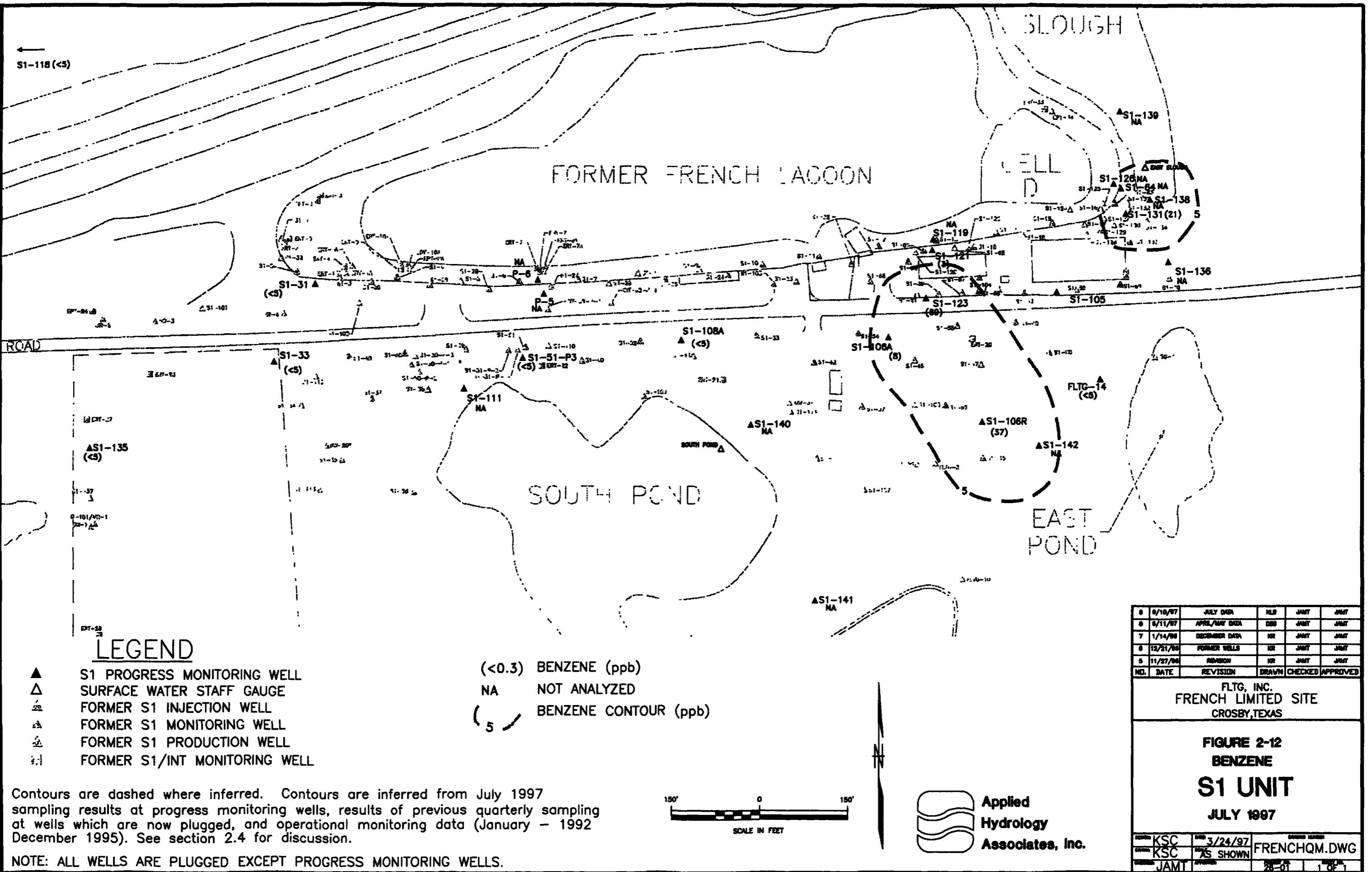


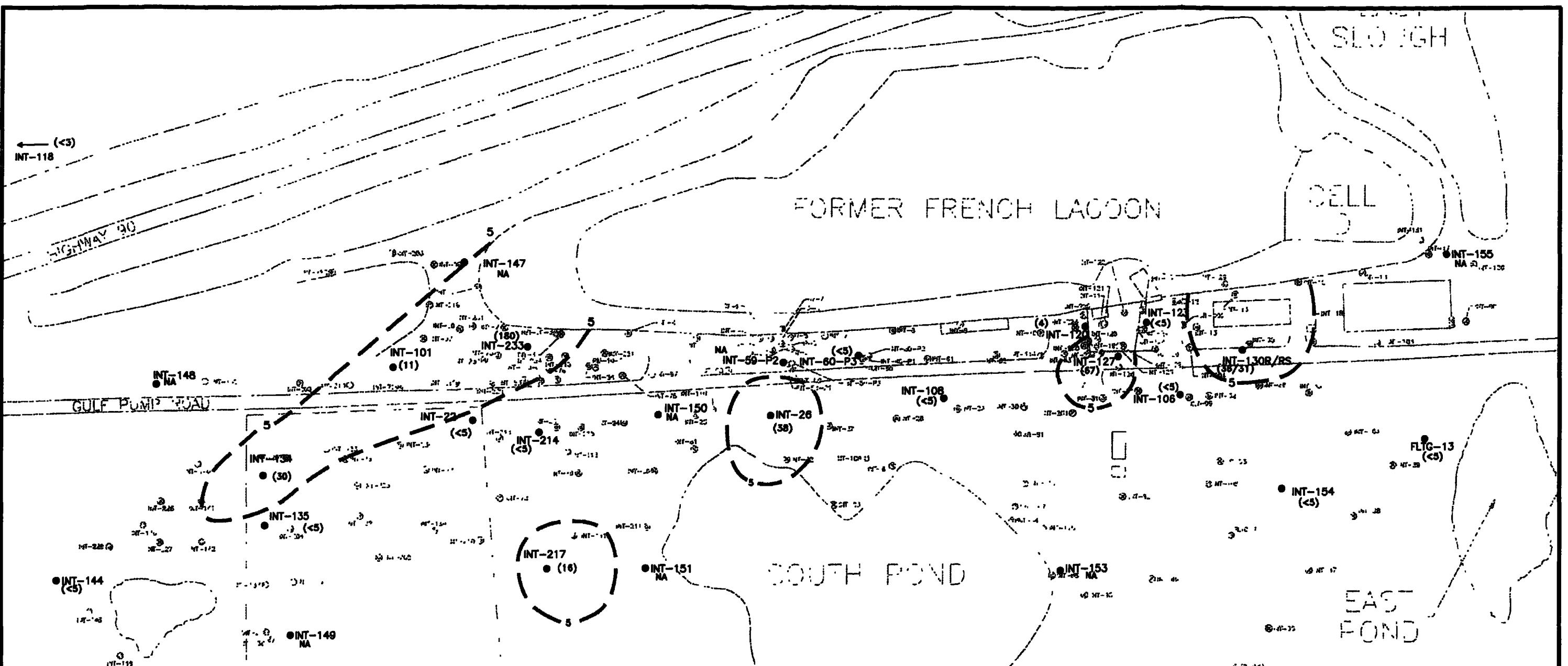
KSC	3/24/97	FRENCHQM.DWG
KSC	AS SHOWN	
JAMT	26-01	1 OF 1











### LEGEND

- INT PROGRESS MONITORING WELL
- FORMER INT INJECTION WELL
- ◎ FORMER INT MONITORING WELL
- ✖ FORMER INT PRODUCTION WELL
- (<0.8) BENZENE (ppb)  
\*VALUE AFTER ADDITIONAL WELL PURGING
- NA NOT ANALYZED
- 5- BENZENE CONTOUR (ppb)

Contours are dashed where inferred. Contours are inferred from July 1997 sampling results at progress monitoring wells, results of previous quarterly sampling at wells which are now plugged, and operational monitoring data (January 1992 – December 1995). See section 2.4 for discussion.

NOTE: ALL WELLS ARE PLUGGED EXCEPT PROGRESS MONITORING WELLS.



Applied  
Hydrology  
Associates, Inc.

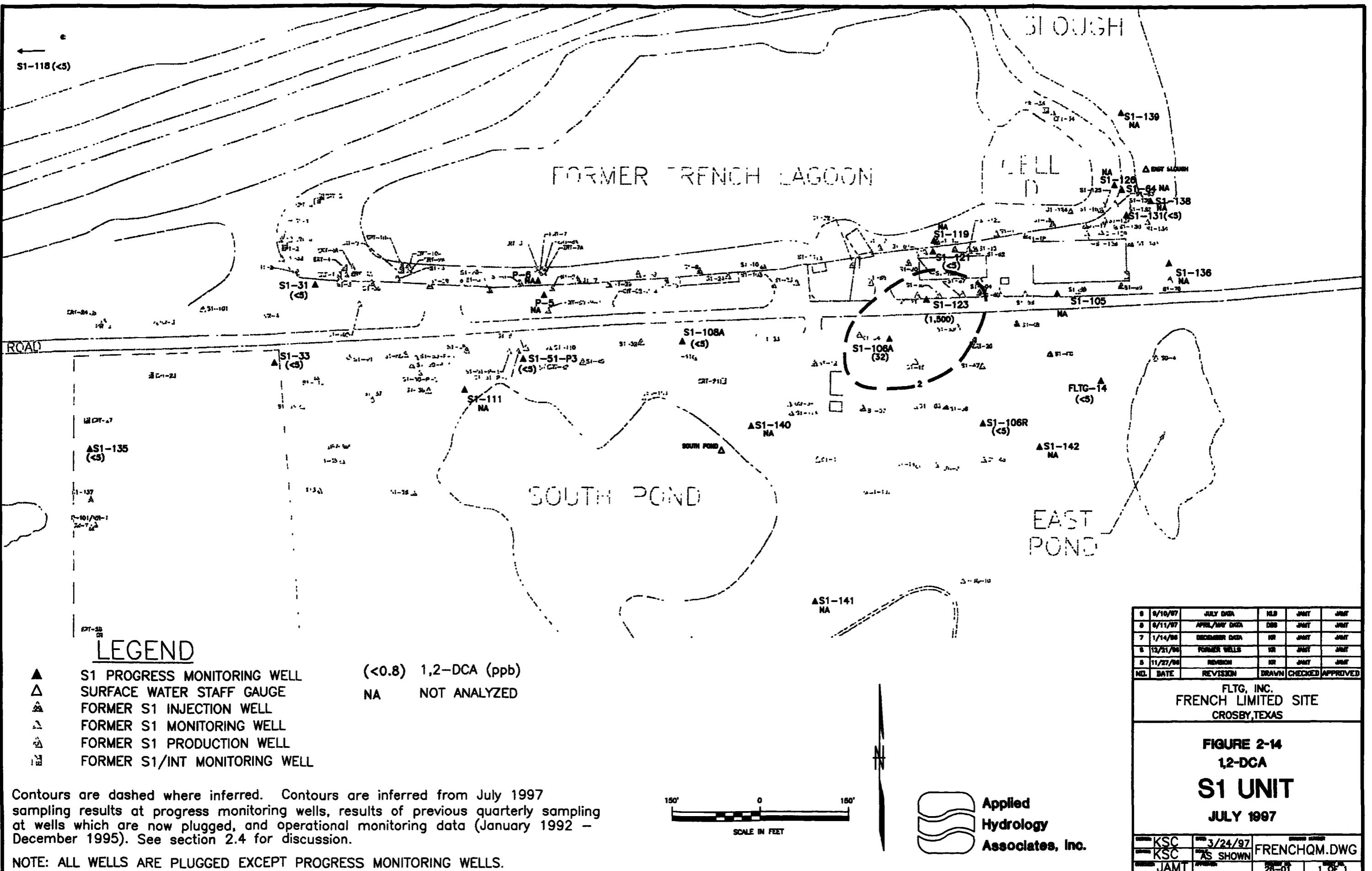
13	9/18/97	JULY DATA	KLB	JANT	JANT
12	6/11/97	APRIL/MAY DATA	DKS	JANT	JANT
11	4/4/97	AVERAGE 94-97	KLB	JANT	JANT
10	2/25/97	FEBRUARY DATA	DKS	JANT	JANT
9	1/14/97	DECEMBER DATA	KLB	JANT	JANT
NO.	DATE	REVISION	DRAWN	CHECKED	APPROVED

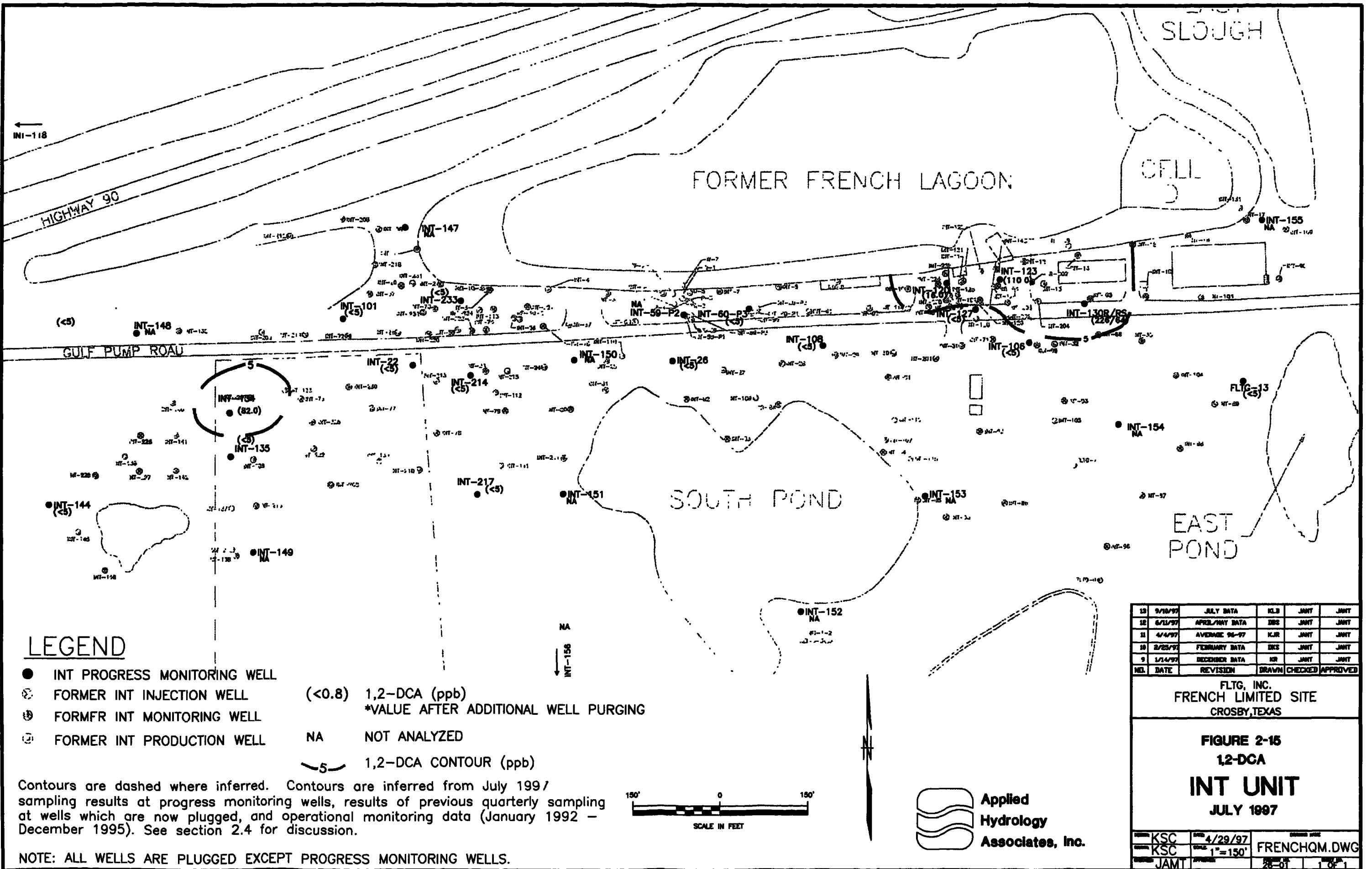
FLTG, INC.  
FRENCH LIMITED SITE  
CROSBY, TEXAS

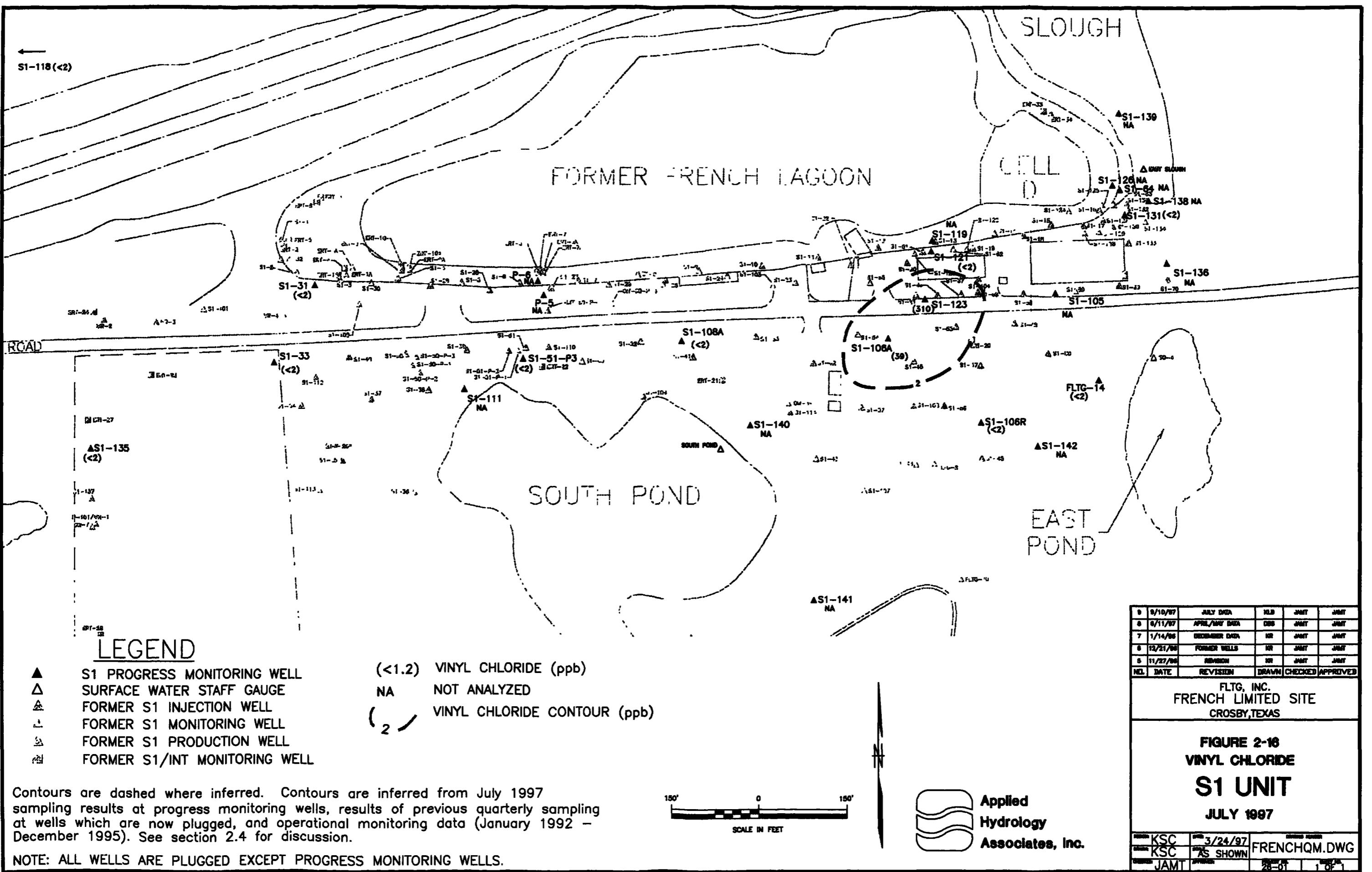
**FIGURE 2-13  
BENZENE**

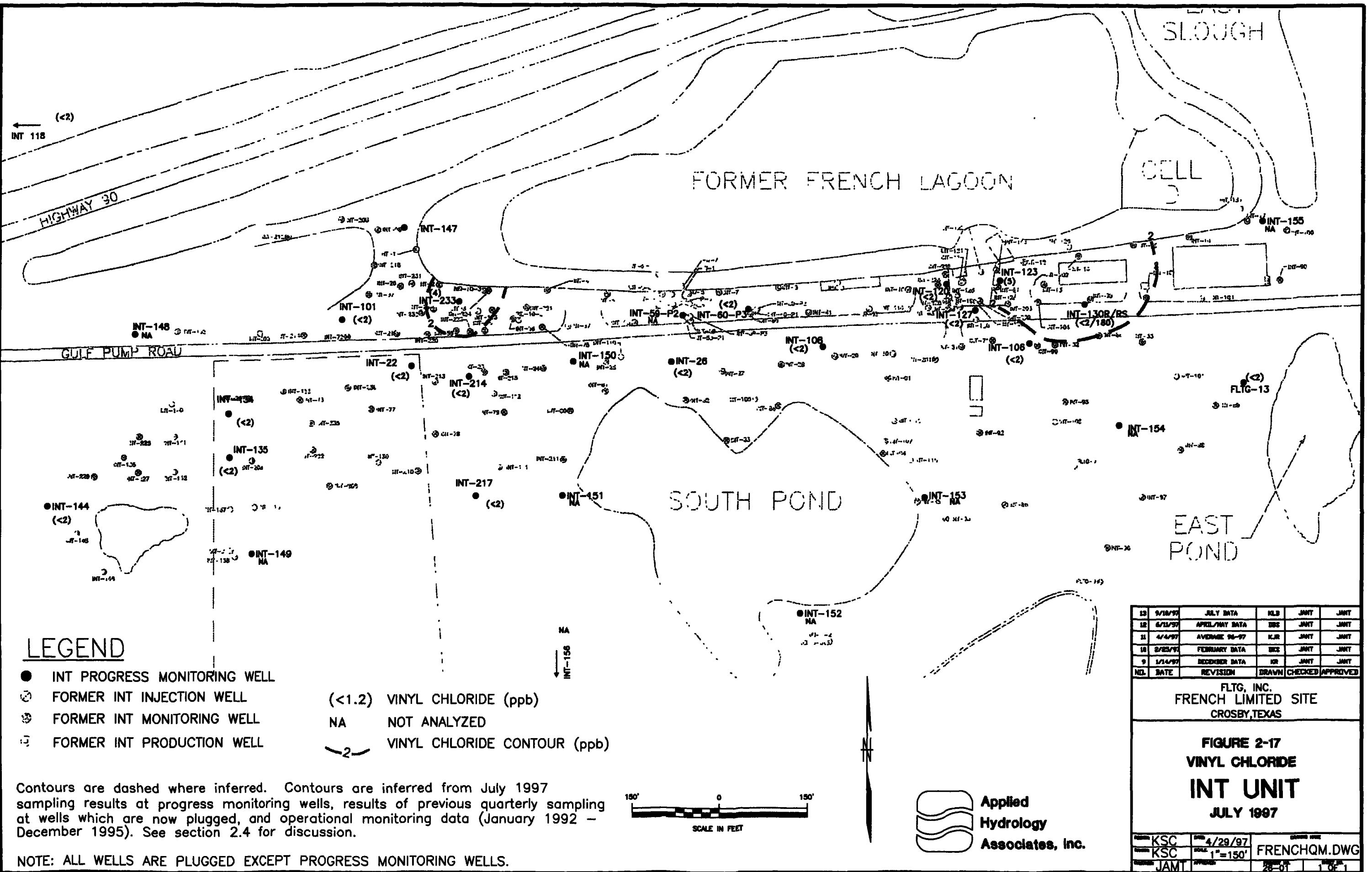
**INT UNIT  
JULY 1997**

KSC	4/29/97	4" = 150'	FRENCHQM.DWG
KSC	1" = 150'		
JANT			









**APPENDIX A**

**July 1997 groundwater sampling results and QA/QC summary**

**TO :** Dick Sloan  
**FROM :** Ron Jansen  
**\*CC :** Jim Thomson  
**DATE :** August 12, 1997  
**RE :** French Ltd. Project - Quarterly Groundwater Monitoring

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Attached are the analytical results for the July, 1997 quarterly groundwater monitoring event.

### **Analytical QA/QC Summary**

#### **1.0 Sampling Summary**

A total of 34 groundwater monitoring wells were sampled. Three wells were sampled in duplicate for field duplicate precision analysis, and 4 monitoring wells were split sampled for analysis by AATS-LA and ACC-CX. The samples were collected between July 14<sup>th</sup> and 16<sup>th</sup>, 1997. The samples were delivered to American Analytical under properly executed chain-of-custody.

Sample Number	Sample Name	Date Col'd	Requested Analyses							Sent to Lab
00809	FLTG-013	7/14/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00810	FLTG-014	7/14/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00811	INT-060-P-3	7/14/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00812	INT-108	7/14/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00813	INT-118	7/14/97	As Cr Pb	VOA\$TCL	K	NH3N	NO3N	OP-P	TOC	AATS-LA
00814	INT-135	7/14/97	As Cr Pb	VOA\$TCL	K	NH3N	NO3N	OP-P	TOC	AATS-LA
00815	INT-144	7/15/97	As Cr Pb	VOA\$TCL	K	NH3N	NO3N	OP-P	TOC	AATS-LA
00816	INT-214	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00817	S1-031	7/15/97	As Cr Pb	VOA\$TCL	K	NH3N	NO3N	OP-P	TOC	AATS-LA
00818	S1-033	7/15/97	As Cr Pb	VOA\$TCL	K	NH3N	NO3N	OP-P	TOC	AATS-LA
00819	S1-051-P-3	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00820	S1-106A	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00821	S1-108A	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00822	S1-111	7/15/97	As Cr Pb							AATS-LA
00823	S1-118	7/15/97	As Cr Pb	VOA\$TCL	K	NH3N	NO3N	OP-P	TOC	AATS-LA
00824	S1-135	7/15/97	As Cr Pb	VOA\$TCL	K	NH3N	NO3N	OP-P	TOC	AATS-LA
00825	S1-121	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00826	S1-121D	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00827	INT-022	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00828	INT-059-P-2	7/15/97	As Cr Pb							AATS-LA
00829	S1-123	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00830	S1-106(R)	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00831	S1-131	7/15/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00832	INT-101	7/16/97	As Cr Pb	VOA\$TCL	K	NH3N	NO3N	OP-P	TOC	AATS-LA
00833	INT-120	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00834	INT-217	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00835	INT-106	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00836	INT-026	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00837	INT-127	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00838	INT-127D	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00839	INT-130RS	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA
00840	INT-123	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC		AATS-LA

Sample Number	Sample Name	Date Coll'd	Requested Analyses						Sent to Lab
00841	INT-134	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC	AATS-LA
00842	INT-134D	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC	AATS-LA
00843	INT-130R	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC	AATS-LA
00844	INT-233	7/16/97	VOA\$TCL	OP-P	NH3N	K	NO3N	TOC	AATS-LA
00845	S1-106(R)	7/15/97	VOA\$TCL						ACC-CX
00846	INT-026	7/16/97	VOA\$TCL						ACC-CX
00847	INT-130RS	7/16/97	VOA\$TCL						ACC-CX
00848	INT-233	7/16/97	VOA\$TCL						ACC-CX

D suffix on well name indicates field duplicate

AATS-LA: American Analytical and Technical Services

ACC-CX : ARCO Chemical Company-CX QC Lab

**Table 2**  
**Summary of Requested Analyses**

Abbreviation	Analysis Description	Method
VOA\$TCL	Volatile Organics	SW846 - 8240
As	Arsenic	EPA 200.7 / SW 6010
Cr	Chromium	EPA 200.7 / SW 6010
Pb	Lead	EPA 200.7 / SW 6010
K	Potassium	EPA 200.7 / SW 6010
TOC	Total Organic Carbon	EPA 415.1
NH3N	Ammonia as N	EPA 350.3
NO3N	Nitrate as N	EPA 300.0
OP-P	Orthophosphate (P)	EPA 365.2

### 1.1 Analytical Data Validation

All analytical data was validated manually for these samples. Table 3 outlines the QC checks made on this data as applicable to the analytical method. All analytical data met QA/QC requirements with the exception of those listed in Table 4. Field duplicate precision summaries are presented in Attachment B.

**TABLE 3**  
**QA/QC Validation Check Summary**

Validation Check
Holding Time - Method stated time between date sampled and date of extraction or analysis.
Method Sequence - Method stated sequence of analyses for instrument calibration and duration of sample analysis time after compliant calibration.
Surrogate Recovery - Surrogate compounds are added to the analysis procedure at a known concentration to verify method effectiveness. Surrogate recoveries are method specific ranges used to qualify analytical results.
Method Blank Cleanliness - Laboratory prepared sample to verify sampling and analytical procedures in a clean matrix
Laboratory Control Spike Recovery and Precision Check - Lab grade blank material spiked with analytes of interest. To verify analytical accuracy in a clean matrix.
Laboratory Split Sample Precision - Checks reproducibility of analytical data, independent of laboratory
Field Duplicate Precision - Checks precision (reproducibility) of sampling techniques and analytical procedures.
MS/MSD Recovery & Precision Data - Checks sampling, preparation and analysis accuracy and precision

**Table 4**  
**QC Exception Summary**

Problem	Comment
Surrogate recovery for sample "S1-108A" (SU1-Toluene-d8) was outside QC limits (high).	The surrogate recoveries for the sample were within QC limits upon re-analysis. Matrix effect is indicated.
Surrogate recovery for sample "S1-123" and "S1-123 MSD" (all three surrogates) was outside QC limits (low).	The surrogate recoveries for the sample were within QC limits upon re-analysis. Matrix effect is indicated. (only the unspiked sample was reanalyzed)
Surrogate recovery for sample "INT-233 MS" (SU1-Toluene-d8) was outside QC limits (high).	The surrogate recoveries for the sample were within QC limits on both the unspiked sample and the matrix spike duplicate. No corrective action is required.
Field duplicate precision (RPD) was 42% for benzene on well INT-134.	The advisory QC limit for laboratory duplicates is 20%. The RPD for 12DCA was 2% on the same sample.
Matrix spike recovery (accuracy) was outside QC limits on sample "S1-121".	Matrix spike precision (RPD) was within QC limits. Matrix effect is indicated.
Matrix spike recovery and precision was outside QC limits on sample "S1-121".	The concentration of matrix spike compounds in the sample was more than 10 times the actual spiked concentration. The precision and accuracy data is not usable. No corrective action is required.

### 1.2 Submissions

All samples were analyzed using appropriate methods and analysis sequences for the requested parameters. There were no major QC issues that require corrective action responses. All samples met project QC criteria except for those listed in Table 4. The QC issues presented in Section 1.1 do not adversely affect the data for its intended use.

Analytical data summaries are presented in Attachment A for all samples.

### 1.3 Data Evaluation

All analytical data was summarized and submitted to project consultants and management for review. All analytical data reports submitted by the laboratory were examined for completeness and validated prior to entering the data into the project database. Complete analytical packages from the lab are available for review. Please note the following samples/issues:

Well	Comment
S1-106A	Concentrations of target analytes increased from non-detect for the last several quarters to concentrations greater above cleanup criteria.
INT-130R INT-130RS	Concentrations of target analytes for the April, 1997 sampling event were swapped (Values for INT-130R were changed to be values for INT-130RS, and vice-versa). An evaluation of the data revealed that there may have been a mislabeling incident in the field or in the lab. The trend of data supported making this change.
S1-123	The concentration of 12DCA and VC increased for this sampling event. This is the well that also had a high concentration back in the July , 1996 sampling event.



**Attachment A**

**French Ltd. Project**

**Analytical Summaries**

**Groundwater Monitoring - July, 1997**

## GROUNDWATER PROGRESS MONITORING

FLTG-013

French Limited Project

FLTG, Inc.

	Date Collected :	12/21/94	1/16/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/14/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft					2.37	1.99	1.61
DISSOLVED OXYGEN	PPM	2.6	1.8	1.8	0.1	1.	0.3	0.4	0.2
FIELD PH	pH un	7.82	7.4	7.44	7.01	6.9	6.61	6.73	6.75
GALLONS REMOVED		gals					1.5	2.	3.
SPECIFIC CONDUCTIVITY	umhos	800.	300.	350.	345.	600.	490.	400.	400.
TEMPERATURE	Deg C	21.	21.	21.	22.	23.	20.	20.	23.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	8.1	< 5.	4.4	< 1.	3.4	5.8	4.8	4.6
<b>NUT</b>									
AMMONIA-N	mg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
NITRATE-N	mg/L	< 2.	0.41	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P	mg/L	< 2.	< 0.1	< 0.1	0.08	< 0.1	< 0.1	< 0.1	< 0.1
POTASSIUM	mg/L	0.93	1.13	1.06	1.1	1.12	0.94	0.89	0.94
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	< 0.3	< 0.3	< 5.	J 2.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2	< 10.	3.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

FLTG-014

French Limited Project

FLTG, Inc.

	Date Collected :	12/21/94	1/16/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/14/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft					1.74	1.63	1.31
DISSOLVED OXYGEN	PPM	2.4	1.4	1.7	0.1	1.4	0.15	0.4	0.2
FIELD PH	pH un	7.77	7.15	7.03	6.97	6.61	6.81	6.76	6.53
GALLONS REMOVED	gals						1.25	1.75	3.
SPECIFIC CONDUCTIVITY	umhos	1000.	220.	300.	390.	1100.	419.	350.	600.
TEMPERATURE	Deg C	21.	19.	22.	22.	24.	18.	20.	26.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	8.2	< 3.	5.9	< 1.	5.6	7.8	6.4	7.5
<b>NUT</b>									
AMMONIA-N	mg/L	< 0.1	0.5	0.7	0.87	0.6	0.7	0.6	1.11
NITRATE-N	mg/L	< 2.	< 0.2	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P	mg/L	< 2.	< 0.1	< 0.1	0.37	< 0.1	0.1	< 0.1	< 0.1
POTASSIUM	mg/L	1.82	1.3	1.61	1.8	1.81	1.65	1.59	2.31
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	7.	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	3.	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-022

French Limited Project

FLTG, Inc.

	Date Collected :	10/2/95	1/17/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				5.29	4.88	4.12	4.68
DISSOLVED OXYGEN	PPM	4.2	1.8	1.6	0.2	0.8	0.2	0.2	0.2
FIELD PH	pH un	7.09	6.88	6.9	7.21	7.01	6.81	6.91	6.79
GALLONS REMOVED	gals						1.75	2.5	3.
SPECIFIC CONDUCTIVITY	umhos	850.	550.	600.	650.	875.	775.	650.	650.
TEMPERATURE	Deg C	24.	23.	21.	22.	23.	21.	21.	23.
<b>MET</b>									
ARSENIC	50	ug/L		21.					
CHROMIUM	100	ug/L		< 10.					
LEAD	15	ug/L		< 5.					
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	25.	< 0.4	4.2	< 1.	4.1	6.5	4.2	4.6
<b>NUT</b>									
AMMONIA-N	mg/L	0.8	0.8	0.4	0.13	0.3	0.2	0.3	0.4
NITRATE-N	mg/L	16.7	2.	0.24	0.07	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P	mg/L	< 0.2	2.6	< 0.1	0.08	< 0.1	< 0.1	< 0.1	< 0.2
POTASSIUM	mg/L	83.8	31.7	33.1	39.	28.8	27.9	27.2	24.1
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	9.	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	9.	44.	< 0.3	< 0.3	4.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	3.	< 0.5	< 0.5	3.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	19.	26.	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-026

French Limited Project

FLTG, Inc.

	Date Collected :	4/4/95	1/17/96	4/12/96	7/22/96	10/7/96	1/24/97	4/16/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				3.68	2.56	2.68	3.15
DISSOLVED OXYGEN		PPM	2.5	1.2	0.1	0.7	0.2	0.1	0.1
FIELD PH		pH un	6.37	6.95	7.	6.95	7.22	6.97	6.69
GALLONS REMOVED		gals					1.5	2.5	2.5
SPECIFIC CONDUCTIVITY		umhos	800.	550.	900.	1000.	810.	500.	800.
TEMPERATURE		Deg C	22.	21.	24.	23.5	20.5	20.	22.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	107.	< 3.	47.3	27.6	34.1	27.5	22.
									17.6
<b>NUT</b>									
AMMONIA-N		mg/L		1.2	1.6	2.	1.5	0.6	1.4
NITRATE-N		mg/L		4.	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L		586.	37.4	35.	36.3	9.4	6.9
POTASSIUM		mg/L		926.	82.4	78.	43.7	18.7	15.9
									7.1
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L		< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L		< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L		180.	98.	100.	75.	24.	24.
TOLUENE	1000	ug/L		7.	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L		< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-059-P-2

French Limited Project

FLTG, Inc.

	Date Collected :	12/21/94	1/16/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				6.78	5.38	5.35	5.82
DISSOLVED OXYGEN		PPM	0.7	1.3	6.61	0.8	0.1	0.2	0.2
FIELD PH		pH un	6.95	7.03	6.86	6.66	6.73	6.88	6.74
GALLONS REMOVED		gals					1.	2.	2.5
SPECIFIC CONDUCTIVITY		umhos	230.	300.	390.	975.	490.	300.	280.
TEMPERATURE		Deg C	23.	21.	24.	25.	21.	21.	24.
<b>MET</b>									
ARSENIC	50	ug/L	47.3	68.	50.	32.	41.	46.	43.
CHROMIUM	100	ug/L	< 0.7	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
LEAD	15	ug/L		< 5.	< 5.	< 3.	< 5.	< 5.	< 5.
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L		< 5.					
<b>NUT</b>									
AMMONIA-N		mg/L	0.42						
NITRATE-N		mg/L	< 2.						
ORTHOPHOSPHATE-P		mg/L	2.6						
POTASSIUM		mg/L			2.6				
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8				< 5.		
ACETONE	3500	ug/L	< 6.				< 10.		
BENZENE	5	ug/L	21.				J 3.		
TOLUENE	1000	ug/L	< 0.5				< 5.		
VINYL CHLORIDE	2	ug/L	< 1.2				< 2.		

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-060-P-3

French Limited Project

FLTG, Inc.

	Date Collected :	1/18/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/14/97
	Criteria	Units						
<b>FLD</b>								
DEPTH TO WATER		Ft			6.06	4.99	5.07	5.82
DISSOLVED OXYGEN		PPM	15.	15.	15.	9.7	9.8	15.
FIELD PH		pH un	6.77	7.02	7.14	7.06	7.17	7.11
GALLONS REMOVED		gals				2.5	1.5	2.
SPECIFIC CONDUCTIVITY		umhos	500.	850.	1380.	1425.	1150.	900.
TEMPERATURE		Deg C	22.	21.	24.	24.5	21.	21.
<b>MET</b>								
ARSENIC	50	ug/L						
CHROMIUM	100	ug/L						
LEAD	15	ug/L						
<b>MISC</b>								
TOTAL ORGANIC CARBON		mg/L	< 3.	2.2	< 1.	1.4	4.	3.3
								1.6
<b>NUT</b>								
AMMONIA-N		mg/L	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1
NITRATE-N		mg/L	41.6	112.	100.	91.	74.4	50.5
ORTHOPHOSPHATE-P		mg/L	0.2	< 0.1	0.06	< 0.1	< 0.1	< 0.1
POTASSIUM		mg/L	37.9	118.	120.	124.	85.6	59.
								95.5
<b>VOA</b>								
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	25.	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	11.	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-101

French Limited Project

FLTG, Inc.

	Date Collected :	12/15/95	1/22/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				5.48	4.99	4.41	4.95
DISSOLVED OXYGEN	PPM	0.5	1.	1.4	0.03	0.9	0.4	0.5	0.1
FIELD PH	pH un	6.85	6.97	6.79	6.75	6.99	7.48	7.58	6.82
GALLONS REMOVED		gals					1.5	2.5	3.
SPECIFIC CONDUCTIVITY	umhos	500.	500.	470.	600.	650.	700.	400.	400.
TEMPERATURE	Deg C	23.	23.	21.	22.	23.	21.		22.
<b>MET</b>									
ARSENIC	50	ug/L	115.	96.	60.	60.	65.	36.	36.
CHROMIUM	100	ug/L	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
LEAD	15	ug/L	< 5.	< 5.	< 5.	< 3.	< 5.	< 5.	< 5.
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	84.	< 3.	29.4	8.8	12.5	7.4	4.2
<b>NUT</b>									
AMMONIA-N		mg/L	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
NITRATE-N		mg/L	< 0.2	< 0.2	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L	< 0.1	< 0.1	0.48	0.64	0.2	0.2	0.3
POTASSIUM		mg/L	1.39	0.69	0.66	0.63	0.61	0.53	0.94
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 2.64	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 19.8	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	218.	120.	36.	36.	33.	9.	< 5.
TOLUENE	1000	ug/L	< 1.65	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 3.96	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-106

French Limited Project

FLTG, Inc.

	Date Collected :	12/15/95	1/17/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				2.82	1.63	0.39	2.91
DISSOLVED OXYGEN		PPM	0.4	0.4	1.4	0.1	0.6	0.2	0.2
FIELD PH		pH un	7.03	6.93	7.1	7.16	7.35	6.97	6.99
GALLONS REMOVED		gals					1.5	2.	2.5
SPECIFIC CONDUCTIVITY		umhos	550.	550.	600.	900.	1050.	1050.	650.
TEMPERATURE		Deg C	23.	23.	21.	22.	24.	21.	23.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	30.	< 1.2	22.2	10.7	23.6	27.1	11.9
<b>NUT</b>									
AMMONIA-N		mg/L	< 0.1	< 0.1	< 0.1	0.11	0.1	< 0.1	< 0.1
NITRATE-N		mg/L	13.4	3.	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L	< 0.1	< 0.1	< 0.1	0.09	< 0.1	< 0.1	< 0.2
POTASSIUM		mg/L	3.12	2.66	2.51	2.4	1.71	1.9	2.48
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	43.	22.	63.	54.	30.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	6.	4.	10.	5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	9.	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-108

French Limited Project

FLTG, Inc.

	Date Collected :	12/15/95	1/16/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/14/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				4.91	3.59	3.83	4.57
DISSOLVED OXYGEN	PPM	3.8	0.6	1.5	0.1	0.7	0.2	0.4	0.2
FIELD PH	pH un	6.76	6.8	7.19	6.99	6.66	6.78	6.85	6.96
GALLONS REMOVED	gals					1.	1.75	2.	
SPECIFIC CONDUCTIVITY	umhos	410.	390.	450.	750.	800.	700.	600.	680.
TEMPERATURE	Deg C	23.	23.	21.	26.	24.5	20.	21.	24.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	7.	< 0.4	5.5	< 1.	4.8	8.1	4.9	5.3
<b>NUT</b>									
AMMONIA-N	mg/L	1.	0.2	< 0.1	0.38	0.6	0.9	< 0.1	0.46
NITRATE-N	mg/L	< 0.2	4.	1.2	< 0.05	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P	mg/L	0.27	0.82	0.9	1.1	1.9	2.3	1.3	2.1
POTASSIUM	mg/L	9.8	41.4	39.3	43.	35.4	34.	35.5	33.2
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	< 0.3	< 5.	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-118

French Limited Project

FLTG, Inc.

	Date Collected :	12/15/95	1/15/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/14/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				10.	10.12	8.6	9.26
DISSOLVED OXYGEN	PPM	1.3	1.1	4.6	5.4	1.2	0.2	4.6	0.2
FIELD PH	pH un	8.19	8.25	8.6	9.76	8.56	8.28	10.48	9.44
GALLONS REMOVED		gals					1.25	2.	2.5
SPECIFIC CONDUCTIVITY	umhos	210.	245.	400.	300.	400.	310.	480.	200.
TEMPERATURE	Deg C	24.	24.	22.	24.	25.	23.	23.	24.
<b>MET</b>									
ARSENIC	50	ug/L		< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
CHROMIUM	100	ug/L		< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
LEAD	15	ug/L		< 5.	< 5.	< 3.	< 5.	< 5.	< 5.
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	2.4	5.	< 2.	< 1.	1.4	2.7	1.1
<b>NUT</b>									
AMMONIA-N		mg/L		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
NITRATE-N		mg/L		0.2	371.	0.39	< 0.2	< 0.2	0.8
ORTHOPHOSPHATE-P		mg/L		< 0.1	< 0.1	0.03	< 0.1	< 0.1	< 0.1
POTASSIUM		mg/L		1.17	3.48	4.3	1.54	0.94	6.96
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	< 0.3	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	2.	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-120

French Limited Project

FLTG, Inc.

	Date Collected :	12/15/95	1/23/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				8.84	7.45	7.75	8.57
DISSOLVED OXYGEN	PPM	3.8	15.	1.6	0.12	1.1	0.2	0.3	0.1
FIELD PH	pH un	7.33	7.18	7.05	7.86	7.52	7.59	7.25	8.32
GALLONS REMOVED		gals					1.5	2.	3.
SPECIFIC CONDUCTIVITY	umhos	1300.	900.	750.	1350.	1350.	1300.	1050.	1050.
TEMPERATURE	Deg C	23.	24.	22.	23.	25.	21.	22.	24.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	18.	150.	4.4	< 1.	2.6	4.	3.1	4.4
<b>NUT</b>									
AMMONIA-N	mg/L	< 0.1	0.94	0.9	0.25	0.4	0.3	0.5	0.18
NITRATE-N	mg/L	329.	36.1	23.3	66.	21.1	47.4	31.	38.4
ORTHOPHOSPHATE-P	mg/L	37.4	470.	21.6	10.	4.1	3.5	3.8	2.2
POTASSIUM	mg/L	94.1	834.	122.	130.	107.	83.6	65.6	88.5
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	1400.	8400.	21.	87.	34.	27.	34.
ACETONE	3500	ug/L	< 120.	< 300.	< 15.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 6.	< 15.	5.	3.	5.	J 4.	J 4.
TOLUENE	1000	ug/L	< 10.	< 25.	< 1.25	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 24.	260.	< 3.	10.	< 10.	3.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-123

French Limited Project

FLTG, Inc.

	Date Collected :	12/15/95	1/23/96	4/12/96	7/22/96	10/7/96	1/24/97	4/16/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft					9.19	7.88	7.97
DISSOLVED OXYGEN	PPM	15.	15.	6.4	0.79	2.	4.6	8.6	15.
FIELD PH	pH un	7.2	8.63	8.2	9.66	9.61	10.67	10.61	9.96
GALLONS REMOVED		gals					1.5	8.	2.5
SPECIFIC CONDUCTIVITY	umhos	495.	500.	500.	800.	900.	925.	700.	650.
TEMPERATURE	Deg C	23.	24.	22.	23.	25.	23.	22.	24.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	8.	< 3.	4.2	< 1.	4.2	4.3	4.	2.5
<b>NUT</b>									
AMMONIA-N	mg/L	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.1	0.2	< 0.1
NITRATE-N	mg/L	119.	25.6	23.2	21.	20.1	23.3	19.2	27.3
ORTHOPHOSPHATE-P	mg/L	4.14	0.74	0.37	0.27	0.2	0.2	< 0.1	0.3
POTASSIUM	mg/L	68.4	73.6	58.9	62.	53.3	54.3	51.5	60.
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	580.	120.	210.	270.	300.	280.	150.
ACETONE	3500	ug/L	< 30.	20.	< 12.	< 6.	< 10.	< 20.	< 10.
BENZENE	5	ug/L	< 1.5	< 0.3	< 0.6	2.	5.	28.	< 5.
TOLUENE	1000	ug/L	< 2.5	< 0.5	< 1.	< 0.5	< 5.	J 7.	< 5.
VINYL CHLORIDE	2	ug/L	77.	15.	< 2.4	3.	< 10.	16.	4.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-127

French Limited Project

FL.TG, Inc.

	Date Collected :	12/15/95	1/22/96	4/12/96	7/22/96	10/7/96	1/24/97	4/16/97	7/16/97
Criteria	Units								
<b>FLD</b>									
DEPTH TO WATER	Ft					2.39	1.	1.15	2.25
DISSOLVED OXYGEN	PPM	1.7	2.	0.8	0.1	0.7	0.2	0.1	0.1
FIELD PH	pH un	6.8	6.31	6.73	6.68	6.31	6.73	6.81	6.77
GALLONS REMOVED	gals						1.5	2.	2.
SPECIFIC CONDUCTIVITY	umhos	700.	750.	850.	1650.	1750.	1710.	1200.	1250.
TEMPERATURE	Deg C	23.	24.	22.	23.	26.	22.	22.	26.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	90.	77.7	70.	44.	78.3	76.6	54.3	50.1
<b>NUT</b>									
AMMONIA-N	mg/L	0.1	0.1	0.7	0.85	0.6	0.4	0.5	0.72
NITRATE-N	mg/L	24.1	4.	47.9	< 0.05	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P	mg/L	0.18	< 0.1	< 0.1	0.03	< 0.1	< 0.1	< 0.1	< 0.2
POTASSIUM	mg/L	11.1	6.01	10.9	14.	9.17	11.	12.9	16.1
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 8.	< 5.	< 10.	< 5.
ACETONE	3500	ug/L	84.	120.	< 6.	< 60.	< 10.	< 20.	< 10.
BENZENE	5	ug/L	140.	150.	160.	170.	200.	180.	65.
TOLUENE	1000	ug/L	36.	37.	34.	43.	50.	44.	13.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 12.	< 10.	< 4.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-130R

French Limited Project

FLTG, Inc.

	Date Collected :	7/22/93	12/21/94	4/12/96	7/22/96	10/7/96	1/24/97	4/16/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				2.45	0.89	0.71	2.52
DISSOLVED OXYGEN		PPM		1.7	1.4	2.1	0.3	0.2	0.1
FIELD PH		pH un		7.43	7.47	7.21	7.55	7.6	7.36
GALLONS REMOVED		gals					2.5	3.	3.
SPECIFIC CONDUCTIVITY		umhos		850.	900.	925.	975.	800.	750.
TEMPERATURE		Deg C		26.	23.	25.	22.	22.	24.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	3.1	16.6	12.7	2.9	11.9	13.5	10.9
<b>NUT</b>									
AMMONIA-N		mg/L		< 0.1	0.2	0.2	0.1	0.1	0.13
NITRATE-N		mg/L		30.6	32.	32.	33.	30.6	31.9
ORTHOPHOSPHATE-P		mg/L		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2
POTASSIUM		mg/L		1.46	2.4	1.64	1.58	1.41	1.36
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	45.	500.	450.	450.	260.	220.	226.
ACETONE	3500	ug/L	< 10.	< 1000.	< 6.	< 1000.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 5.	< 500.	27.	< 500.	49.	29.	36.
TOLUENE	1000	ug/L	< 5.	< 500.	5.	< 500.	9.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 10.	< 1000.	< 1.2	< 1000.	4.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-130RS

French Limited Project

FI.TG, Inc.

	Date Collected :	7/22/93	12/21/94	4/12/96	7/22/96	10/7/96	1/24/97	4/16/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				2.85	2.2	1.44	2.91
DISSOLVED OXYGEN		PPM		2.1	0.1	0.6	0.2	0.2	0.2
FIELD PH		pH un		7.24	7.16	6.89	7.21	7.11	7.03
GALLONS REMOVED		gals					1.5	2.	3.
SPECIFIC CONDUCTIVITY		umhos		900.	1050.	1100.	1100.	900.	900.
TEMPERATURE		Deg C		25.	23.	26.	22.	21.	24.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	3.1	16.6	17.4	2.9	15.9	20.8	16.9
<b>NUT</b>									
AMMONIA-N		mg/L		< 0.1	< 0.1	0.1	< 0.1	< 0.1	< 0.1
NITRATE-N		mg/L		23.2	20.	17.5	14.	12.5	12.7
ORTHOPHOSPHATE-P		mg/L		< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.2
POTASSIUM		mg/L		1.82	3.3	1.89	2.02	1.52	1.48
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	45.		1800.	290.	100.	130.	65.
ACETONE	3500	ug/L	< 10.		< 200.	< 6.	< 250.	< 10.	< 10.
BENZENE	5	ug/L	< 5.		< 100.	21.	< 120.	34.	25.
TOLUENE	1000	ug/L	< 5.		< 100.	< 0.5	< 120.	J 1.	< 5.
VINYL CHLORIDE	2	ug/L	< 10.		180.	250.	180.	250.	160.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-134

French Limited Project  
FLTG, Inc.

	Date Collected :	12/15/95	1/18/96	4/12/96	7/22/96	10/7/96	1/24/97	4/16/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft							
DISSOLVED OXYGEN		PPM	14.6	0.7	1.2	0.1	1.2	0.4	0.1
FIELD PH		pH un	6.76	7.42	7.42	7.42	7.47	7.48	7.58
GALLONS REMOVED		gals						1.5	2.5
SPECIFIC CONDUCTIVITY		umhos	370.	500.	525.	1000.	1000.	1100.	800.
TEMPERATURE		Deg C	24.	22.	22.	22.	23.	22.	22.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	8.	< 1.	21.6	15.	34.1	44.	29.2
<b>NUT</b>									
AMMONIA-N		mg/L	< 0.1	0.3	0.7	0.53	0.6	0.3	0.2
NITRATE-N		mg/L	21.3	1.8	0.45	0.78	2.	2.9	1.
ORTHOPHOSPHATE-P		mg/L	0.19	18.	8.72	4.	1.2	0.8	1.2
POTASSIUM		mg/L	1.35	43.1	26.4	16.	7.21	5.92	6.37
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	78.	68.	67.	85.	110.	96.	64.
ACETONE	3500	ug/L	< 15.	< 12.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	26.	34.	27.	54.	56.	44.	19.
TOLUENE	1000	ug/L	< 1.25	< 1.	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	198.	190.	19.	140.	190.	130.	81.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-135

French Limited Project

FLTG, Inc.

	Date Collected :	12/15/95	1/17/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/14/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft					12.06	11.62	10.7
DISSOLVED OXYGEN		PPM	3.8	1.	1.	0.15	0.8	0.2	1.8
FIELD PH		pH un	6.98	6.95	6.88	6.76	6.76	6.75	6.56
GALLONS REMOVED		gals						1.25	1.75
SPECIFIC CONDUCTIVITY		umhos	325.	440.	500.	820.	800.	700.	600.
TEMPERATURE		Deg C	23.	23.	23.	22.	24.	22.	24.
<b>MET</b>									
ARSENIC	50	ug/L		< 10.	20.	22.	23.	28.	12.
CHROMIUM	100	ug/L		< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
LEAD	15	ug/L		< 5.	< 5.	< 3.	< 5.	< 5.	< 5.
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	10.	< 3.	14.3	8.1	11.8	16.	13.3
<b>NUT</b>									
AMMONIA-N		mg/L	< 0.1	< 0.1	0.1	0.11	< 0.1	< 0.1	0.14
NITRATE-N		mg/L	0.52	2.2	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L	< 0.1	< 1.	< 0.1	0.04	< 0.1	< 0.1	< 0.1
POTASSIUM		mg/L	1.15	1.16	1.19	1.2	1.14	1.24	1.13
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	29.	15.	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 12.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.6	< 0.3	< 0.3	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 1.	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	146.	66.	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-144

French Limited Project  
FLTG, Inc.

	Date Collected :	12/15/95	1/15/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				15.62	15.17	13.91	15.16
DISSOLVED OXYGEN	PPM	0.7	0.7	2.4	1.8	2.4	1.6	0.5	1.2
FIELD PH	pH un	8.8	8.63	8.84	9.66	9.11	9.37	9.31	8.35
GALLONS REMOVED		gals					1.25	2.	2.
SPECIFIC CONDUCTIVITY	umhos	300.	310.	325.	370.	925.	320.	300.	300.
TEMPERATURE	Deg C	21.	23.	21.	21.	23.5	21.	21.	22.
<b>MET</b>									
ARSENIC	50	ug/L		< 10.	20.	17.	17.	16.	14.
CHROMIUM	100	ug/L		< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
LEAD	15	ug/L		< 5.	< 5.	< 3.	< 5.	7.	< 5.
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	1.5		< 3.	< 2.	< 1.	< 1.	1.4	1.2
<b>NUT</b>									
AMMONIA-N	mg/L	< 0.1		0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
NITRATE-N	mg/L	< 0.2		< 0.2	< 0.2	0.12	< 0.2	0.2	0.7
ORTHOPHOSPHATE-P	mg/L	0.2		< 0.1	< 0.1	0.1	< 0.1	< 0.1	0.2
POTASSIUM	mg/L	1.2		0.94	1.03	0.95	0.86	0.89	4.57
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	< 0.3	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	3.	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-214

French Limited Project

FLTG, Inc.

	Date Collected :	2/5/95	1/18/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				3.03	2.52	2.01	2.47
DISSOLVED OXYGEN		PPM	1.	1.4	0.1	0.7	0.1	0.5	0.2
FIELD PH		pH un	6.9	7.48	7.2	6.7	6.63	6.55	6.53
GALLONS REMOVED		gals					1.5	1.75	2.
SPECIFIC CONDUCTIVITY		umhos	700.	575.	750.	800.	700.	625.	700.
TEMPERATURE		Deg C	23.	21.	22.	23.5	21.	21.	22.5
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	< 0.7	3.	< 1.	2.5	4.2	3.6	4.4
<b>NUT</b>									
AMMONIA-N		mg/L	0.2	< 0.1	< 0.1	0.2	< 0.1	0.9	2.3
NITRATE-N		mg/L	5.5	1.53	< 0.05	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L	60.6	5.95	1.7	1.1	0.8	1.	2.6
POTASSIUM		mg/L	188.	88.9	70.	60.5	63.	63.1	57.4
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	7.	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	19.	< 0.3	< 0.3	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	61.	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-217

French Limited Project  
FLTG, Inc.

	Date Collected :	11/1/95	1/16/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				3.48	2.6	2.13	2.78
DISSOLVED OXYGEN		PPM	0.4	0.4	0.9	0.1	1.	0.2	0.2
FIELD PH		pH un	6.53	6.9	6.74	6.69	6.34	6.78	6.57
GALLONS REMOVED		gals					1.5	2.	3.
SPECIFIC CONDUCTIVITY		umhos	750.	1000.	805.	1300.	1200.	415.	1000.
TEMPERATURE		Deg C	23.	23.	21.	22.	23.	21.	23.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	74.	< 2.5	56.8	48.4	53.8	54.9	44.8
<b>NUT</b>									
AMMONIA-N		mg/L	< 0.1	1.1	0.4	0.1	0.1	< 0.1	0.1
NITRATE-N		mg/L	0.8	0.51	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L	< 0.2	206.	5.9	1.	0.4	< 0.1	< 0.1
POTASSIUM		mg/L	1.33	385.	19.6	2.1	1.35	0.78	0.98
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	14.	22.	51.	16.	22.	18.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	12.	< 0.5	< 5.	6.	< 5.
VINYL CHLORIDE	2	ug/L	41.	51.	8.	9.	17.	5.	6.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

INT-233

French Limited Project

FJ.TG, Inc.

	Date Collected :	11/1/95	1/23/96	4/12/96	7/22/96	10/7/96	1/24/97	4/16/97	7/16/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				6.48	5.92	5.42	5.85
DISSOLVED OXYGEN	PPM	0.3		0.7	0.12	0.7	0.1	0.1	0.1
FIELD PH	pH un	6.37	6.84	6.79	6.65	6.7	7.21	7.13	6.87
GALLONS REMOVED		gals					1.5	2.	3.
SPECIFIC CONDUCTIVITY	umhos	4000.	750.	1200.	2050.	1800.	1500.	1200.	1200.
TEMPERATURE	Deg C	21.	24.	22.	22.	25.	21.	22.	23.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	2850.	1800.	264.	100.	98.9	59.1	34.2
<b>NUT</b>									
AMMONIA-N		mg/L	0.4	2.6	1.2	7.8	8.7	5.7	2.7
NITRATE-N		mg/L	0.3	< 0.2	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L	< 0.2	< 0.1	5.52	5.5	4.6	3.9	0.1
POTASSIUM		mg/L	2.83	16.2	10.5	13.	9.09	9.63	9.19
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 80.	< 160.	< 2.7	< 8.	< 16.	< 5.	< 5.
ACETONE	3500	ug/L	7600.	27000.	< 19.8	< 60.	< 33.	< 10.	< 10.
BENZENE	5	ug/L	1400.	740.	370.	350.	500.	< 5.	100.
TOLUENE	1000	ug/L	< 50.	< 100.	140.	100.	19.	J 2.	< 5.
VINYL CHLORIDE	2	ug/L	3000.	< 240.	< 4.	< 12.	< 33.	< 2.	4.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-031

French Limited Project

FLTG, Inc.

	Date Collected : 8/2/95	Criteria	Units	1/17/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/15/97
<b>FLD</b>										
DEPTH TO WATER		Ft					7.46	6.82	6.43	6.86
DISSOLVED OXYGEN	PPM	15.		0.6	1.5	0.02	0.9	0.1	0.3	0.3
FIELD PH	pH un	6.91		7.22	7.49	7.4	6.84	7.06	7.03	7.16
GALLONS REMOVED		gals						1.5	2.	3.
SPECIFIC CONDUCTIVITY	umhos	700.		600.	300.	450.	1050.	850.	525.	650.
TEMPERATURE	Deg C	24.		23.	21.	23.	25.5	21.	21.	23.
<b>MET</b>										
ARSENIC	50	ug/L		< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	12.
CHROMIUM	100	ug/L		13.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
LEAD	15	ug/L		5.	< 5.	< 3.	< 5.	< 5.	< 5.	< 5.
<b>MISC</b>										
TOTAL ORGANIC CARBON	mg/L	15.		9.	4.1	< 1.	11.4	8.8	6.4	5.9
<b>NUT</b>										
AMMONIA-N	mg/L			0.2	0.6	0.29	0.2	0.2	0.3	1.09
NITRATE-N	mg/L			26.5	2.8	0.16	< 0.2	< 0.2	0.6	< 0.2
ORTHOPHOSPHATE-P	mg/L			5.48	1.7	0.52	0.2	< 0.1	0.1	< 0.2
POTASSIUM	mg/L			144.	93.8	32.	10.9	4.7	3.87	27.1
<b>VOA</b>										
1,2-DICHLOROETHANE	5	ug/L		< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.	< 5.
ACETONE	3500	ug/L		< 6.	< 6.	< 6.	< 10.	< 10.	< 10.	< 10.
BENZENE	5	ug/L		< 0.3	< 0.3	< 0.3	< 5.	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L		< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L		< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-033

French Limited Project

FLTG, Inc.

	Date Collected :	3/22/94	1/16/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				3.43	3.04	2.22	2.76
DISSOLVED OXYGEN		PPM	0.4	1.6	0.16	1.2	0.15	0.2	0.2
FIELD PH		pH un	6.48	7.23	6.69	6.58	6.75	6.67	5.97
GALLONS REMOVED		gals					1.5	1.5	2.5
SPECIFIC CONDUCTIVITY		umhos	495.	450.	700.	1150.	510.	410.	500.
TEMPERATURE		Deg C	23.	20.	22.	24.	21.	20.	23.
<b>MET</b>									
ARSENIC	50	ug/L	< 10.	< 10.	< 10.	13.	< 10.	< 10.	17.
CHROMIUM	100	ug/L	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
LEAD	15	ug/L	< 5.	< 5.	< 3.	< 5.	< 5.	< 5.	< 5.
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	< 3.	3.5	< 1.	7.6	9.6	9.8	10.4
<b>NUT</b>									
AMMONIA-N		mg/L	< 0.1	< 0.1	< 0.1	0.2	0.2	0.5	0.87
NITRATE-N		mg/L	131.	288.	0.78	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L	1.2	0.6	0.49	0.4	< 0.1	< 0.1	< 0.2
POTASSIUM		mg/L	68.1	59.5	88.	65.3	63.4	56.7	63.4
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	< 0.3	< 5.	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-051-P-3

French Limited Project

FLTG, Inc.

	Date Collected :	1/18/96	4/12/96	7/22/96	10/7/96	1/24/97	4/14/97	7/15/97
	Criteria	Units						
<b>FLD</b>								
DEPTH TO WATER		Ft			3.67	2.61	2.65	3.1
DISSOLVED OXYGEN	PPM	0.6	1.8	1.7	0.7	0.1	0.2	0.2
FIELD PH	pH un	6.86	6.92	6.87	6.63	6.53	6.58	5.97
GALLONS REMOVED		gals				1.25	1.75	2.5
SPECIFIC CONDUCTIVITY	umhos	500.	450.	820.	900.	800.	700.	550.
TEMPERATURE	Deg C	21.	20.	23.	24.	21.	20.	23.
<b>MET</b>								
ARSENIC	50	ug/L						
CHROMIUM	100	ug/L						
LEAD	15	ug/L						
<b>MISC</b>								
TOTAL ORGANIC CARBON	mg/L	< 3.	11.3	7.8	14.8	16.7	15.8	13.7
<b>NUT</b>								
AMMONIA-N	mg/L	0.8	0.9	0.96	1.3	1.7	1.2	2.4
NITRATE-N	mg/L	7.4	4.2	3.8	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P	mg/L	< 0.1	< 0.1	0.09	< 0.1	< 0.1	< 0.1	0.2
POTASSIUM	mg/L	37.9	54.8	81.	72.	72.1	72.	44.6
<b>VOA</b>								
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 5.	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 10.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	< 5.	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 5.	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 10.	< 2.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-106A

French Limited Project

FLTG, Inc.

	Date Collected :	11/1/95	1/15/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft					2.28	0.7	0.87
DISSOLVED OXYGEN	PPM	15.	15.	12.6	7.6	1.	1.	0.4	0.1
FIELD PH	pH un	6.74	6.7	7.52	7.26	6.96	6.85	6.75	6.73
GALLONS REMOVED		gals					1.5	3.	2.
SPECIFIC CONDUCTIVITY	umhos	470.	450.	400.	800.	850.	800.	600.	700.
TEMPERATURE	Deg C	25.	24.	21.	22.	24.	20.	20.	23.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	3.	< 3.	< 2.	< 1.	2.5	3.9	1.1	2.7
<b>NUT</b>									
AMMONIA-N	mg/L	< 0.1	< 0.1	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
NITRATE-N	mg/L	21.7	92.3	16.6	23.3	11.4	16.2	15.4	12.9
ORTHOPHOSPHATE-P	mg/L	< 0.2	0.71	0.6	1.	0.6	0.8	1.2	1.6
POTASSIUM	mg/L	35.	47.	43.1	52.	29.	36.5	46.8	44.
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	7.	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	< 0.3	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

GROUNDWATER PROGRESS MONITORING  
S1-106(R)

French Limited Project  
FLTG, Inc.

	Date Collected :	8/2/95	9/1/95	10/2/95	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				6.71	4.6	5.02	7.08
DISSOLVED OXYGEN	PPM	0.2	0.2	0.2	0.1	0.9	0.2	0.2	0.1
FIELD PH	pH un	6.54	6.42	6.65	6.77	6.63	6.78	6.61	6.58
GALLONS REMOVED		gals					1.75	2.	
SPECIFIC CONDUCTIVITY	umhos	800.	650.	500.	1100.	1025.	1200.	900.	1025.
TEMPERATURE	Deg C				21.	23.	20.	20.	21.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	28.	23.	30.	9.	18.8	25.6	19.9	21.2
<b>NUT</b>									
AMMONIA-N	mg/L	< 0.1	1.65	1.45	3.2	3.3	1.8	1.9	2.9
NITRATE-N	mg/L	< 0.1	< 0.2	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P	mg/L	0.8	< 0.2	0.3	16.	8.9	5.4	2.5	2.2
POTASSIUM	mg/L	41.9	49.6	44.2	53.	54.5	42.6	27.9	28.
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	8.	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	16.	18.	32.	36.	25.	34.	26.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 0.5	2.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

< = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-108A

French Limited Project  
FLTG, Inc.

	Date Collected :	11/1/95	1/15/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				5.61	4.26	4.59	5.32
DISSOLVED OXYGEN	PPM	0.5	2.	1.8	0.1	0.8	0.1	0.6	0.1
FIELD PH	pH un	5.98	6.07	7.08	6.8	6.42	6.52	6.5	6.34
GALLONS REMOVED		gals					2.	2.5	2.5
SPECIFIC CONDUCTIVITY	umhos	425.	470.	400.	650.	775.	625.	500.	600.
TEMPERATURE	Deg C	25.	22.	20.	25.	25.	20.	19.	23.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	8.	51.6	3.8	1.1	4.5	8.	6.	7.5
<b>NUT</b>									
AMMONIA-N	mg/L	0.8	0.2	< 0.1	0.67	0.4	0.4	0.4	0.75
NITRATE-N	mg/L	5.8	51.6	4.2	0.47	0.3	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P	mg/L	< 0.2	0.33	0.1	0.23	0.1	< 0.1	0.1	< 0.2
POTASSIUM	mg/L	17.9	28.2	34.2	38.	34.7	28.7	37.1	35.4
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	10.	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	J 4.
BENZENE	5	ug/L	< 0.3	< 0.3	4.	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	3.	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-111

French Limited Project  
FLTG, Inc.

	Date Collected :	12/15/95	1/15/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				3.79	2.72	2.7	3.11
DISSOLVED OXYGEN	PPM	15.	15.	15.	15.	8.9	2.2	0.6	0.2
FIELD PH	pH un	7.84	7.74	7.18	7.53	6.8	6.97	6.96	6.61
GALLONS REMOVED		gals					1.5	2.	2.5
SPECIFIC CONDUCTIVITY	umhos	525.	900.	600.	1050.	1050.	850.	720.	700.
TEMPERATURE	Deg C	21.	22.	21.	22.	24.	21.	20.	23.
<b>MET</b>									
ARSENIC	50	ug/L		< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
CHROMIUM	100	ug/L		12.	< 10.	< 10.	< 10.	< 10.	< 10.
LEAD	15	ug/L		9.	< 5.	< 3.	< 5.	< 5.	< 5.
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	6.7	9.					
<b>NUT</b>									
AMMONIA-N		mg/L	< 0.1						
NITRATE-N		mg/L	231.						
ORTHOPHOSPHATE-P		mg/L	18.5						
POTASSIUM		mg/L	126.		170.				
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8						
ACETONE	3500	ug/L	< 6.						
BENZENE	5	ug/L	< 0.3						
TOLUENE	1000	ug/L	< 0.5						
VINYL CHLORIDE	2	ug/L	< 1.2						

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-118

French Limited Project

FLTG, Inc.

	Date Collected :	12/15/95	1/15/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				8.95	8.99	7.44	8.15
DISSOLVED OXYGEN		PPM	2.2	1.6	1.6	0.8	1.2	0.15	0.4
FIELD PH		pH un	8.	6.67	6.74	6.28	6.35	6.5	6.62
GALLONS REMOVED		gals					1.5	3.	2.5
SPECIFIC CONDUCTIVITY		umhos	470.	200.	500.	310.	825.	355.	300.
TEMPERATURE		Deg C	21.	24.	21.	26.	27.	23.	20.
<b>MET</b>									
ARSENIC	50	ug/L		< 10.	< 10.	< 10.	27.	< 10.	10.
CHROMIUM	100	ug/L		< 10.	< 10.	< 10.	< 10.	< 10.	< 10.
LEAD	15	ug/L		< 5.	< 5.	< 3.	< 5.	< 5.	< 5.
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	9.	< 0.5	6.2	6.1	5.7	9.1	6.3
<b>NUT</b>									
AMMONIA-N		mg/L		< 0.1	0.1	0.2	0.3	< 0.1	0.2
NITRATE-N		mg/L		< 0.2	< 0.2	< 0.05	< 0.2	0.4	< 0.2
ORTHOPHOSPHATE-P		mg/L		< 0.1	< 0.1	0.05	< 0.1	< 0.1	< 0.2
POTASSIUM		mg/L		2.7	1.72	1.5	1.89	1.74	1.94
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	< 0.3	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-121

French Limited Project  
FLTG, Inc.

	Date Collected :	12/15/95	1/18/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
Criteria	Units								
<b>FLD</b>									
DEPTH TO WATER	Ft					8.79	7.88	7.45	8.86
DISSOLVED OXYGEN	PPM	4.4	10.2	1.7	0.1	1.	0.1	0.2	
FIELD PH	pH un	6.66	6.8	6.84	6.85	6.89	6.77	6.86	6.6
GALLONS REMOVED	gals						2.25	2.	2.5
SPECIFIC CONDUCTIVITY	umhos	700.	750.	750.	1300.	1300.	1150.	1200.	1300.
TEMPERATURE	Deg C	25.	24.	23.	23.	25.	22.		24.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	35.	108.	14.6	5.2	5.1	9.5	11.3	29.6
<b>NUT</b>									
AMMONIA-N	mg/L	0.1	0.1	0.7	0.58	< 0.1	< 0.1	0.2	0.63
NITRATE-N	mg/L	< 0.2	56.2	< 0.2	0.75	6.	9.9	< 0.2	4.4
ORTHOPHOSPHATE-P	mg/L	< 0.1	< 0.1	< 0.1	0.03	< 0.1	< 0.1	< 0.1	10.
POTASSIUM	mg/L	4.79	108.	19.	43.	34.6	53.8	29.9	31.
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	48.	40.	24.	8.	3.	< 5.	< 5.
ACETONE	3500	ug/L	324.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	57.	< 0.3	5.	4.	< 5.	< 5.	J 3.
TOLUENE	1000	ug/L	24.	< 0.5	< 0.5	< 0.5	< 5.	< 5.	J 4.
VINYL CHLORIDE	2	ug/L	311.	17.	66.	8.	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-123

French Limited Project  
FLTG, Inc.

	Date Collected :	12/15/95	1/23/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft					1.67	0.1	0.35
DISSOLVED OXYGEN	PPM	14.6	3.2	2.2	5.	1.2	0.2	0.2	0.1
FIELD PH	pH un	6.76	7.13	6.98	6.84	6.58	6.95	6.89	6.66
GALLONS REMOVED		gals					1.5	2.5	3.
SPECIFIC CONDUCTIVITY	umhos	370.	500.	550.	1130.	1100.	975.	400.	1125.
TEMPERATURE	Deg C	24.	25.	22.	24.	26.	23.	23.	24.
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON	mg/L	8.	0.43	4.8	9.3	6.8	11.4	4.3	9.5
<b>NUT</b>									
AMMONIA-N	mg/L	< 0.1	< 0.1	0.3	0.44	0.6	0.6	0.3	0.3
NITRATE-N	mg/L	7.35	2.4	0.2	< 0.05	< 0.2	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P	mg/L	0.81	0.43	0.3	0.94	0.2	< 0.1	0.3	< 0.2
POTASSIUM	mg/L	5.3	8.2	17.	28.	7.85	8.05	5.67	7.41
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	18.	180.	680.	19000.	4.	< 5.	28.
ACETONE	3500	ug/L	< 12.	4.	< 60.	< 60.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.6	< 0.3	< 3.	< 3.	< 5.	< 5.	69.
TOLUENE	1000	ug/L	< 1.	< 0.5	< 5.	43.	< 5.	< 5.	62.
VINYL CHLORIDE	2	ug/L	< 2.4	4.	< 12.	2600.	21.	5.	310.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-131

French Limited Project

FLTG, Inc.

	Date Collected :	6/6/95	1/23/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				3.24	5.8	5.61	6.14
DISSOLVED OXYGEN	PPM	9.4	9.	1.4	0.07	0.8	0.1	0.2	0.2
FIELD PH	pH un	6.88	7.22	7.53	6.98	7.16	7.81	7.32	6.95
GALLONS REMOVED		gals					1.5	2.5	3.
SPECIFIC CONDUCTIVITY	umhos	1200.	600.	550.	1300.	1300.	900.	950.	1000.
TEMPERATURE	Deg C	24.	24.	22.	23.	25.	21.	22.	
<b>MET</b>									
ARSENIC	50	ug/L							
CHROMIUM	100	ug/L							
LEAD	15	ug/L							
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L	< 3.	20.8	17.	42.7	26.1	40.	43.9
<b>NUT</b>									
AMMONIA-N		mg/L	< 0.1	1.8	2.2	2.2	1.9	0.3	1.4
NITRATE-N		mg/L	8.6	306.	< 0.05	0.4	3.1	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L	< 0.1	< 0.1	0.03	< 0.1	< 0.1	< 0.1	0.2
POTASSIUM		mg/L	62.6	91.9	94.	93.4	19.	34.7	62.4
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	6.	< 5.	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	17.	< 10.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	8.	21.	31.	32.	J 3.	J 4.	21.
TOLUENE	1000	ug/L	3.	< 0.5	< 0.5	< 5.	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit

## GROUNDWATER PROGRESS MONITORING

S1-135

French Limited Project

FLTG, Inc.

	Date Collected :	12/15/95	1/15/96	4/12/96	7/22/96	10/7/96	1/24/97	4/15/97	7/15/97
	Criteria	Units							
<b>FLD</b>									
DEPTH TO WATER		Ft				7.18	6.96	5.24	6.25
DISSOLVED OXYGEN		PPM		1.6	1.7	0.1	0.6	0.1	0.2
FIELD PH		pH un		6.46	6.58	6.27	6.28	6.22	6.38
GALLONS REMOVED		gals					2.25	3.	2.5
SPECIFIC CONDUCTIVITY		umhos		350.	300.	450.	1000.	400.	300.
TEMPERATURE		Deg C		23.	21.	23.	25.	21.	21.
<b>MET</b>									
ARSENIC	50	ug/L	195.	169.	40.	62.	69.	47.9	98.
CHROMIUM	100	ug/L	13.	13.	< 10.	< 10.	< 10.	5.2	< 10.
LEAD	15	ug/L	< 5.	5.	< 5.	5.1	< 5.	< 0.8	< 5.
<b>MISC</b>									
TOTAL ORGANIC CARBON		mg/L		< 0.5	16.4	16.	16.5	18.4	15.2
<b>NUT</b>									
AMMONIA-N		mg/L		0.9	0.7	0.44	0.4	0.2	< 0.1
NITRATE-N		mg/L		< 0.2	< 0.2	< 0.05	< 0.2	< 0.2	< 0.2
ORTHOPHOSPHATE-P		mg/L		< 0.1	< 0.1	0.18	< 0.1	< 0.1	< 0.1
POTASSIUM		mg/L		7.33	5.57	3.8	3.81	3.61	3.66
<b>VOA</b>									
1,2-DICHLOROETHANE	5	ug/L	< 0.8	< 0.8	< 0.8	< 0.8	< 5.	< 5.	< 5.
ACETONE	3500	ug/L	< 6.	< 6.	< 6.	< 6.	< 10.	< 10.	< 10.
BENZENE	5	ug/L	< 0.3	< 0.3	3.	< 0.3	< 5.	< 5.	< 5.
TOLUENE	1000	ug/L	< 0.5	< 0.5	< 0.5	< 0.5	< 5.	< 5.	< 5.
VINYL CHLORIDE	2	ug/L	< 1.2	< 1.2	< 1.2	< 1.2	< 10.	< 2.	< 2.

J = Estimated value below detection limit

E = Estimated value greater than calibration range

&lt; = Analyte not detected at listed detection limit



**Attachment B**

**French Ltd. Project**

**Field Duplicate Precision Summaries**

**Groundwater Monitoring - July, 1997**